

Auditorium Building (Roosevelt Univ.)  
N.W. Corner Michigan Ave. & Congress Street  
(extending through to Wabash Street)  
Chicago  
Cook County  
Illinois

HABS No. ILL-1007

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REDUCED COPIES OF MEASURED DRAWINGS

Historic American Buildings Survey

Addendum to:  
Auditorium Building (Roosevelt University)  
430 South Michigan Avenue  
Chicago  
Cook County  
Illinois

HABS No. IL-1007

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey  
National Park Service  
Department of the Interior  
Washington, D.C. 20240

AND DATA  
FOLLOWS...

## HISTORIC AMERICAN BUILDINGS SURVEY

HABS No. ILL-1007

AUDITORIUM BUILDING  
(NOW ROOSEVELT UNIVERSITY)

Location: Northwest corner of Michigan Avenue and Congress Street, extending through to Wabash Street, Chicago, Cook County, Illinois.

Present Owner and Occupant: Roosevelt University.

Present Use: Theatre and University.

Statement of Significance: The Auditorium Building designed by Adler and Sullivan and built 1887-89, has been cited by the Commission of Chicago Architectural Landmarks: "In recognition of the community spirit which here joined commercial and artistic ends, uniting hotel, office building, and theatre in one structure; and the inventiveness of the engineer displayed from foundations to the perfect acoustics; and the genius of the architect which gave form and, with the aid of original ornament, expressed the spirit of festivity in rooms of great splendor."

PART I. HISTORICAL INFORMATION

## A. Physical History:

1. Date of erection: Excavation begun January 28, 1887. Building dedicated December 9, 1889.
2. Architects: Dankmar Adler and Louis Henri Sullivan.
3. Original and subsequent owners: The chain of title is recorded in Book 461, pp. 247-249, in Cook County Recorder's Office.

The original owner was the Chicago Auditorium Association, under the leadership of Ferdinand W. Peck. The present owner acquired the building from the successors of the original owner, the Auditorium Building Corporation, August 8, 1946 (Document 13865766).

4. Alterations and additions: The Auditorium Building thrived fulfilling its original functions into the 1920's. In 1927 the opera moved to a new building and after only

intermittant use the Auditorium closed permanently in 1940. In 1941, the contents of the building were sold at an auction. During World War II, the building was used as a Serviceman's USO bowling alley and underwent various alterations at that time.

During the period the Auditorium theater was used, the chief alteration was the addition of a parquet circle of separate boxes. Originally, the ground floor seating extended, unbroken, from the orchestra to the lobby. The theater was neglected after it was closed, and fell into disrepair, mainly due to unchecked roof leakage. The condition was stabilized prior to restoration of the theater.

During the widening of Congress Street in the 1950's, the entire south bay of the ground story of the building was opened into an arcade to accommodate the sidewalk. This included removal of an original bar, a long, narrow room at the southeast corner of the building, and the removal of part of the lobby of the theater. Originally there was a high, two-story wooden observation tower atop the masonry tower of the building.

The following account of the Auditorium Building is from: Wilbert R. Hasbrouck, "Chicago's Auditorium Theater," The Prairie School Review, No. 3 (Third Quarter, 1967), pp. 7-17.

"In 1947, the newly formed Roosevelt University bought the building for use as its physical plant. The hotel and business block portion of the building was used as classrooms but the theater was not adaptable for use by the University and cost of renovating it was out of the question. Therefore, the administration of the University took the position that while they could not restore the theater, they could give another organization the right to restore and operate it as a tax free public entity. The trustees of Roosevelt University thus resolved to form the Auditorium Theater Council. The Council has "the right to restore, operate and manage the Auditorium Theater as a civic enterprise, to raise the money for the restoration, hold it separately from all other funds and use it solely for that purpose."

"The only logical candidate for chairman of the newly formed Council was Mrs. John V. Spachner who had recently completed raising the funds needed to restore the Rudolph Ganz Hall, a tiny ornamental gem also decorated

by Sullivan, located over the theater proper and used by the Chicago Musical College as a recital hall.

"After the Council was formed, Architects Crombie Taylor and Associates and Skidmore, Owings and Merrill made preliminary studies of what needed to be done. Taylor was a long time student of the work of Adler and Sullivan and acted primarily as consultant on aesthetic matters.

Skidmore, Owings and Merrill did cost estimates and attempted to evaluate the condition of the structure. These first studies seemed to indicate that the building was in grave danger of collapse. It was estimated that it would cost more than four million dollars to restore the theater.

"The Auditorium Theater was now faced with the possibility that costs might exceed any possible fund raising effort. In the summer of 1963 good fortune came to Mrs. Spachner and the Council in the person of Harry M. Weese. This prominent Chicago architect had been called the modern link to the "Chicago School" architects who were practicing at the time the Auditorium was built. He knew and admired the work of Adler and Sullivan and could not accept as fact the statements that this magnificent building was built in such a manner that it was in danger of collapse. He became chairman of the Council's Building Committee and offered his services as a gift to Chicago. Weese set about reevaluating the problems of restoration and assigned several members of his firm to aid him in the task. Prominent consultants were brought in and in early 1964 he was able to advise that the building was actually in reasonably good condition and that much of what had to be done was of a "cosmetic" nature.

"It was found that only a very few of the structural elements in the building needed reinforcement. Most of the plaster ornament was still in place although cleaning was required. Those parts of the ornament which were damaged or otherwise missing were replaced by making molds of the pieces still in place and recasting replacements on the site. Gold paint was used instead of gold leaf and under the carbon filament lamps in the theater it is not possible to separate the new plaster from the old. This same philosophy was followed throughout the building. When an original piece could be cleaned and left in place it was; when minor repairs

would restore to original condition this was done. Only in cases of absolute necessity were new components used. One casualty of the restoration was the loss of nearly all of the stencils in the theater. Funds were not available to restore or replace them. However, Professor Taylor had already made tracing of most of the designs and has since recut many of these fascinating ornaments. As funds become available they will be replaced on the theater walls."

B. Sources of Information:

1. Primary sources:

Prints of original drawings on microfilm at the Burnham Library, Art Institute of Chicago, roll 6, frames 217-232. Frames 217-partial foundation plan. 218-basement plan on Wabash Avenue. 219-first floor plan. 220-plan of second floor rooms. 221-second floor plan. 222-third floor plan. 223-fourth floor plan. 224-fifth floor plan. 225-sixth floor plan. 227-eighth floor plan. 228, 229-ninth floor plans. 230-tenth floor plan. 231-perspective drawing, partial view of Michigan Avenue facade showing entrance. 232-detail of auditorium equipment.

Prints of original drawings in the job-site office in the lobby of the Auditorium Theatre of Skidmore, Owings, and Merrill, architects. Roof trusses and other structural details.

Adler and Sullivan, Manuscript chart showing cost of buildings, 1879-1895. Burnham Library in the Art Institute of Chicago.

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Original Drawings used for the Restoration. Archives of Harry Weese and Assoc., Chicago.

2. Secondary sources:

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Cubic Contents 8.737.000

1. FOUNDATIONS	.0080
2. MASONRY	.0245
3. CARPENTRY	.0222
4. STRUCT. IRON	.0478
5. ORNAM. IRON	.0062
6. PRIS. LIGHTS	.0023
7. WIRE WORK	.0003
8. TERRA COTTA	
9. CUT STONE	.0351
10. FIRE PROOFING	.0288
11. CONCRETE OR ASPH.	.0044
12. PAVING	
13. PLASTERING	.0104
14. ORN. PLASTER	.0041
15. SHEET METAL	.0061
16. ROOFING	.0009
17. P'L'G. GAS & SEWERS	.0201
18. BOILERS & TANKS	.0038
19. HEATING APPAR.	
20. VENT'G APPAR.	.0164
21. PIPE COVERING	.0023
22. TEMP. REG'L'R	
23. ELEVATORS	.0211
24. PUMPS	.0021
25. ENGINES	.0028
26. DYNAMOS	
27. ELEC. WIRING	.0092
28. ELEC. L'GHT FIX.	.0009
29. MISC. ELEC. W'K	
30. GAS FIXTURES	
31. PAINTING	.0070
32. PLAIN GLASS	
33. STAINED GLASS	.0045
34. DECORATION	.0105
35. MARBLE & TILE	.0142
36. MANTELS	.0014

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37. CABINET W'K	.0060
38. VENETIAN BLINDS	.0004
39. HARDWARE	.0058
40. VAULT DOORS	
41. IRON DOORS & SHUT'S	.0010
42. MAIL CHUTES	.0002
43. FIRE ESCAPES	
44. STAGE AND	.0024
45. STAGE MACH'Y	
46. SCENERY	.0019
47. OPERA CHAIRS	.0034
48. UPOL. & CARPETS	.0011
49. ORGAN	.0052
50. MISC. MACH'Y	.0011

ENTIRE B'LDG. .36

TOTAL COST 3.145.291.50

Prepared by Osmund Overby,  
Supervisory Architect  
and  
Larry J. Homolka,  
Historian  
National Park Service  
August, 1963

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HISTORIC AMERICAN BUILDINGS SURVEY

Addendum to:  
AUDITORIUM BUILDING  
(Roosevelt University)

HABS No. IL-1007  
(Page 11)

Location: 430 South Michigan Avenue  
Chicago  
Cook County  
Illinois

Present Owner  
and Occupant: Roosevelt University.

Present Use: Main campus of the university and theater.

Statement of  
Significance: The Auditorium Building, now Roosevelt University, was the largest structure of its kind in America at the time of its completion in 1890. Designed by Dankmar Adler (1844-1900) and Louis H. Sullivan (1856-1924), the 4,237 seat theater, hotel, and office building earned a national reputation for their firm.

The complexity of a structure containing three unrelated functions on a small site created design problems of space and access for the architects and engineers. The combination of these factors with the desire of the promoters to have the latest conveniences and most luxurious surroundings required state of the art structural systems and associated building technology. The result is a building that in its structural, heating, ventilating, cooling, lighting, electrical, hydraulic, and sanitary systems reveals all the virtues and limitations of the available technology of that time.

Data pages 1 through 10 were previously transmitted to the Library of Congress.

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PART I - HISTORY OF THE AUDITORIUM BUILDING

The Great Fire of 1871 left Chicago without suitable facilities for large orchestral, choral or operatic performances. Although numerous halls and theaters were constructed after the Fire, they were invariably too small, poorly located, or badly designed.

In the early part of 1876, George B. Carpenter, a local concert and lecture impresario and member of Rev. David Swing's newly organized Central Church, conceived the idea of constructing a profit making concert hall, office, and store building which would also serve as a home for the church. The building, taking its name from the church, would be known as the Central Music Hall.

Carpenter apparently took the idea immediately to the architectural firm of Burling and Adler. It is not known exactly why he selected this firm, but earlier he had conducted a series of lectures and promoted various concerts in the small Kingsbury Music Hall that the firm had designed in 1873 for the east side of Clark Street just north of Randolph Street.

Edward Burling, the firm's senior partner, was one of the city's oldest and most prominent architects.

Dankmar Adler<sup>1</sup>, his associate, a German-born Jew, had come to Chicago with his family in the spring of 1861 at the age of sixteen and entered the office of another prominent architect, Augustus Bauer, where he remained until July 1862 when he enlisted in the Union Army.

At the conclusion of the Civil War, Adler returned to Bauer's office. By May 1868, according to directories, he had entered the employ of Ozia S. Kinney, an architect with a sizeable practice in religious and institutional work throughout the Midwest. Adler soon became foreman and held this position until Kinney's death. By May 1869 he had entered into partnership with Kinney's son Ashley J. under the firm name of Kinney and Adler. Ostensibly the partnership was formed to complete the work left unfinished at the time of the elder Kinney's death.

In January 1871, having severed his connection with Ashley J. Kinney, Adler entered into partnership with Burling. The exact nature of this partnership remains a mystery. The two principals were often listed separately in the directories as if a partnership did not exist. Work done in their office is variously attributed to E. Burling & Co., Burling and Adler, Burling, Adler & Co., and to E. Burling but as yet none has been found attributed only to Adler.

In a March 2, 1879 interview in the Chicago Times Carpenter stated that he had been working with Adler on plans for the new hall. Together, he and Adler had worked out six different designs, including the one from which the building was being constructed. The design of the Central Music Hall was really the work of the firm of Burling and Adler. Burling's involvement in litigation due

to his having served as Superintendent for construction of the Federal Court House, however, forced him to withdraw from the firm in the early part of 1879 before construction began and the commission was then left entirely in Adler's hands.<sup>2</sup>

During this design process, Adler gained, probably with Carpenter's assistance, an understanding of the science of acoustics, which would eventually assure his selection as architect of the Auditorium Building.<sup>3</sup>

The essence of Adler's approach to acoustics as first revealed in the design of the Central Music Hall was relatively simple and direct. The primary factor was arranging the seating in such a manner as to assure maximum visibility of the stage from every seat in the house. Adler had discovered this could be accomplished by using the "isacoustic curve" principle for determining the rise of seating as first promulgated by John Scott Russell in 1838.<sup>4</sup> To avoid excessive reverberation Adler held the volume of the auditorium to the minimum necessary and broke up the wall and ceiling surfaces with projecting beams, pilasters, and sculptured ornament. Smooth wall and ceiling surfaces were used only at the rear of the hall where reflections from these areas could reinforce direct sound.

Adler's influence over the design of the Central Music Hall, like that in most of his work, did not extend directly to the design of its architectural embellishment. This was left in the hands of others.<sup>5</sup>

Despite the fact that the design was without particular architectural distinction and the capacity of the auditorium (seating approximately 1,900) was relatively small, the Central Music Hall became one of the most successful halls in Chicago. This success was due not only to its central location at the southeast corner of State and Randolph Street, but also to the spaciousness of its interior and the excellence of its acoustics.

To secure the financial backing necessary to construct the building, Carpenter did not have to look far. Among his fellow parishioners in the Central Church were a number of wealthy and influential Chicagoans, including Ferdinand W., Charles I., and Walter L. Peck, N.K. Fairbanks, Martin Ryerson, and Franklin W. McVeagh. These men and others would later figure prominently in the direction and support of the Chicago Auditorium Association.

In exchange for conceiving the idea and carrying it through to completion, the corporation of financiers awarded Carpenter a substantial number of its shares. Upon completion of the building (it opened on December 4, 1879) Carpenter became its lessee and manager.

On May 1, 1880<sup>6</sup> Adler hired Louis H. Sullivan, who had just left the employ of architect William Strippelman<sup>7</sup>, as foreman and chief designer replacing John H. Edelmann (who seems to have held the position throughout 1879) at the latter's instigation. From that day until the dissolution of the partnership of Adler and Sullivan in 1895, Sullivan assumed total responsibility for



working out the aesthetic aspects of every building done under Adler's name and later under both their names. In 1882, apparently again on May 1, Sullivan became Adler's junior partner in the firm of D. Adler and Co. Exactly a year later Sullivan became a full partner in the firm of Adler and Sullivan.

Sullivan was twenty-four years old when he entered Adler's employ. He had studied architecture at M.I.T. in 1872-73 and for about six months at the Ecole des Beaux-Arts in Paris in 1874-75. His first work experience had been with the noted Philadelphia architect Frank Furness in the summer of 1873. Upon his arrival in Chicago, he had entered the office of architect William Le Baron Jenney, where he met his life long idol John Edelmenn. In the years that followed, before entering Adler's office, he had worked for a number of Chicago architects, including Edelmenn's own short-lived firm of Johnston and Edelmenn.

In the years immediately following the completion of the Central Music Hall, Adler and Sullivan designed several auditoriums. Four of these, the Academy of Music at Kalamazoo, Michigan in 1881-82, the remodeling of McVicker's Theater in Chicago in 1883-85, and the two remodelings of the interior of the Interstate Industrial Exposition building for the Theodore Thomas May Festivals of 1882 and 1884 resulted directly from the success of the Central Music Hall.

For the Theodore Thomas May Festivals Adler worked with festival president N.K. Fairbanks and festival manager Milward Adams. Adams had been George B. Carpenter's assistant since 1872 and manager of the Central Music Hall since Carpenter's death in 1881. The remodeling efforts were to temporarily convert the mammoth turtle-backed Exposition Building constructed in 1873 on Michigan Avenue at the foot of Adams Street into a concert hall.<sup>8</sup> Although these conversions were of crude wood construction, they were apparently successful enough to further enhance Adler's reputation.

Although construction of the Central Music Hall had given Chicago an adequate small concert hall, the city was still without a permanent hall suitable for the presentation of grand opera and the mammoth choral and orchestral performances that were the pride of the late nineteenth century.

As early as 1880 N.K. Fairbanks had offered to give \$100,000 for the construction of such a hall if nine other men would give like amounts, but he apparently could not find enough backers at that time.

At roughly the same time preparations were being made to use the Exposition Building for the First May Festival, Silas G. Pratt, a local musician and first president of the Apollo Club, then and still one of the city's most prominent singing societies, asked Colonel Mapleson, the opera impresario who at that time was managing a season of opera at McVicker's Theater, to visit the Exposition Building with him to determine if it could be used for an opera festival. Mapleson was enthusiastic and in February 1884 Pratt asked Mapleson

to meet with several local businessmen to discuss the matter. After several further meetings the Chicago Opera Festival Association was chartered on April 14, 1884.<sup>9</sup> Among the association were a number of backers of the Central Music Hall including Ferdinand W. Peck, who was elected its president.

Ferdinand Wyeth Peck, the son of one of Chicago's earliest residents, was then thirty six years old. He had earlier maintained a successful legal practice, but following the death of his father, he and his brothers entered the real estate business in order to manage the extensive holdings their father had left them.<sup>10</sup>

Given Adler's previous experience in remodeling the Exposition Building and his connection with the Central Music Hall men, it is not at all surprising that his firm, Adler and Sullivan, was selected by the Opera Festival Association as architects for the hall.

In the earlier remodeling of the Exposition Building, the relatively low ceiling had made it impossible to bring the entire audience close to the stage platform through the use of several balconies. The excessive depth, which was the inevitable result of such an arrangement, forced Adler to use an approach completely different from any he had used before. In his earlier theaters he had endeavored to reduce the amount of reflected sound. Here, however, the only way for the most remote viewers to hear was to intensify the effect of direct sound by reinforcing it with sound reflected off a huge sounding board above the stage platform.

In designing the Opera Festival Hall Adler was forced to use essentially the same approach, but instead of the stage platform used in the earlier halls, the requirements of grand opera necessitated the construction of a full stage with rigging loft and proscenium. The result was a deep, almost fan shaped auditorium with a huge funnel-like proscenium (serving as the sounding board), the first of its kind and the predecessor of almost every major theater created in the first half of this century. A view of the interior was published in the Inland Architect & Builder, March 1885, and later reproduced as Figure 3 in Morrison's Louis Sullivan.

The stage of this temporary theater was large, 126 feet wide by 80 feet deep or 29 feet wider and 18 feet deeper than that which would eventually be constructed for the Auditorium.

The simple cut wood and painted ornament of the interior, which was limited almost entirely to the sounding board and attached proscenium boxes, was executed in the "Egyptoid" style that Sullivan had worked in from the time he entered Adler's office.<sup>11</sup> This ornamental style, which Sullivan seems to have developed with John Edelman, appears to have been derived out of the High Victorian Gothic to which vaguely arabesque and Egyptian motifs were added. Though lighter in feeling than his earliest work in this style, this ornament was typically Victorian and rather provincial. The stenciled ornament of the sounding board remains of particular interest because it is

the earliest known example of Sullivan's ornament in this medium, and it was done by George L. Healy and Louis J. Millet, classmates of Sullivan at the Beaux Arts who would later design and execute all the stenciled ornament in the Auditorium.

The Opera Festival consisted of one matinee and evening performance each of thirteen French, German, and Italian operas beginning April 6, 1885 and ending on April 18.

After the Festival ended, the Opera Festival Hall was used by several other opera companies and was then dismantled to make way for the Interstate Industrial Exposition of 1885. The success of the Festival convinced Peck and his associates that Chicago, more than ever, needed a large permanent hall.

When the Opera Festival Association met for its annual meeting on May 2, 1885, it was announced that they were looking for a site on Michigan Avenue for the new building.<sup>12</sup> One of the sites under consideration was Dearborn Park at the southwest corner of Michigan Avenue and Randolph Street.

Dearborn Park, however, had already been spoken for by the Public Library and various veterans groups. In the fall of 1885, Peck attempted to convince these groups to go along with the Opera Festival Association and construct one common building for the use of all. Being rebuffed by the Library, and in the process earning the displeasure of the Chicago Tribune,<sup>13</sup> Peck and his associates gave up all thought of considering their project as a public institution and turned their attention to private enterprise. To do this successfully they realized they would also have to become involved in some kind of profit making enterprise since large deficits would be inherent in operating an auditorium that was likely to be frequently vacant.

The first sign that a site had been selected appeared when the Chicago Tribune of January 24, 1886 announced that there was talk about the construction of a great hotel at the northwest corner of Michigan Avenue and Congress Street. On March 1, 1886 the Chicago Herald revealed that Wirt Dexter Walker, representing a syndicate of capitalists, had secured the Scammon property, an odd patchwork of lots fronting on Michigan and Wabash Avenues on the north side of Congress Street, for construction of a hotel, but there was no hint that this had anything to do with Peck's efforts.

Finally on June 13, 1886 the Chicago Tribune announced that an option had been secured for additional property and that Peck and his associates intended to construct on this irregular site a hotel on Michigan Avenue, a theater on Congress Street, and offices on Wabash Avenue.

The site undoubtedly determined the prominence and position given to the hotel. Looking at it today, set at the very center of Chicago's lakefront panorama and butted to the north by a complex of large office buildings, one might think that an office building would have been a far better investment than a hotel. In the 1880s, however, and for many years to come, there was

little office space at that end of the central business district. Although Wabash Avenue was already a business street, most of the buildings on it were either stores, factories or a combination of both. On the other hand, most of the large buildings on Michigan Avenue north of Congress Street were hotels. Even the prominent Pullman Building at the southwest corner of Michigan Avenue and Adams Street was half residential. To the south of Congress Street, Michigan Avenue was still lined with many fine residences from before and immediately after the Great Fire. To this day most of the high-rise buildings to the south of the Auditorium are either hotels or apartments. Constructing a hotel was therefore the only practical way of taking advantage of the potential of the site.

Hotels, because they require large permanent staffs and extensive auxiliary facilities but have fluctuating occupancy rates, are in general more risky investments than office buildings where the exact opposite is the case. Peck and his associates surely realized this, and although they must have known of the risks of investing in office space at this location, they correctly perceived that the great hall would eventually attract a suitable number of tenants to justify building an office building as well. Being knowledgeable businessmen, they tried to cover all contingencies.

It is not clear when and under what circumstances the Chicago Opera Festival Association ceased to exist or what happened to its assets but it seems to have been still alive in mid 1886.<sup>14</sup>

By the summer of 1886, when it had become clear that the nonprofit public nature of the Opera Festival Association could not carry out construction of the proposed building, Peck began seeking opinions from attorneys as to just how he could organize a corporation to build it. It seems to have been Peck's original intention just to erect the building and then rent it out. The attorneys argued that this could not be done under Illinois law. A corporation could not be organized for the sole purpose of renting property. It would have to have some other purpose as well. It was for this reason that so many large buildings in Chicago had safety deposit vaults in their basements. Renting vaults was the legal fiction that had enabled their promoters to incorporate.

On July 16, 1886 Edson Keith, John M. Clark, Wirt D. Walker, Nathaniel K. Fairbanks and Ferdinand W. Peck applied to the Illinois Secretary of State for a license to organize the Chicago Grand Auditorium Association. As advised by the attorneys, the purpose of this corporation was not only to own real estate but also to erect an auditorium, organize and conduct musical and operatic entertainment, and even establish art galleries among numerous other worthy purposes. The life of the corporation was set at 99 years.<sup>15</sup>

The capital stock was initially set at \$750,000, each share costing \$100. Even though Peck knew that this would not be enough to erect the building, he also knew that a larger issuance of stock might discourage investors.

As soon as the license was issued, Peck and his associates began promotions to get subscriptions to the stock. This did not mean that each subscriber immediately paid for the stock, rather each pledged to pay in ten installments as construction progressed. In spite of the fact that the venture was to be for profit, Peck did not lead prospective subscribers to believe they could expect a handsome return.

Peck himself pledged \$100,000, and although Adler and Sullivan did not as yet have a contract to do the work, the firm initially pledged the incredible sum of \$25,000.<sup>16</sup>

It seems unlikely that Adler, whose firm was then relatively small and unknown, would have done this if he had not had positive assurance from Peck that Adler and Sullivan would be the architects when a board of directors meeting was finally called to select an architect.

In his annual report to the stockholders for December 1, 1888, Peck implied that a design had actually been worked out by Adler and Sullivan in the early part of 1866 for only the portion of the property that was then under the control of himself and his associates. No record survives of this design.<sup>17</sup>

By mid August 1866 Peck had secured options on all of the land south of the Studebaker Building, on Michigan Avenue, and south of the Giles Building on Wabash Avenue. The plot extended along the full length of the north side of Congress Street from Michigan to Wabash.

Peck realized that in order to attract more investors, he needed a fairly accurate representation of the proposed building. On September 26, 1886 the Chicago Herald announced that Adler and Sullivan had completed what has come down to us as the first of the surviving designs for the building and the first design for the full site. This plan called for an ornate structure that was in the main eight stories and an attic in height with turrets, gables and oriels in a version of the Richardsonian Romanesque that clearly resembles the work of Sullivan's colleague John Root. The first two floors were to be stone and the rest brick and terra cotta. It is clear from the general massing and fenestration that the final layout of the interior, with certain minor exceptions, had already been determined. The design called for a hotel on the east and south fronts and an office building on the west front. These uses would surround the theater at the rear which was to be reached through the base of a tower, with high hipped roof and capping fleche, on the south side that separated the office and hotel sections. A reproduction of this drawing is Plate 12 in Morrison's Louis Sullivan.

Sullivan's apparent emulation of Root in this design was indicative of his somewhat erratic search for a new architectural idiom. This search was undoubtedly brought on by the decline in popularity of the styles to which his earlier works were related: the High Victorian Gothic, Second Empire and even Italianate. He experimented with a number of popular styles and he seems to have greatly favored Queen Anne. The most significant style from the point of

view of his future development was the Richardsonian Romanesque. Whenever Sullivan searched for new sources he never seems to have been willing to go too far outside of Chicago. He always relied upon local interpretations of parent styles. His emulation of Root therefore fits the pattern. As will be seen later, even when he finally did emulate Richardson directly, it would only be through a local example of the master's work, the Marshall Field Wholesale Warehouse.

Whatever this design may have lacked architecturally, it seems to have more than made up for it structurally. In 1925 Paul Mueller, Adler and Sullivan's chief engineer, described this design as being "made for terra-cotta, very light, projecting bay windows, with iron columns from the second floor."<sup>18</sup> This would seem to indicate that it was intended to be of iron frame curtain wall construction from above its two story stone base. This construction technique would be like that used by William Le Baron Jenney two years earlier in the construction of the Home Insurance Building. This is not unusual, because up to that time Adler and Sullivan had never designed a commercial building in which iron framing of one sort or another did not appear prominently on the facade. They were certainly familiar with Jenney's achievement because, contrary to popular opinion, they did use curtain wall construction in the Auditorium Building in the south wall of the main court and in the west wall of the stage house and kitchen.

On November 1, 1886 N.K. Fairbanks, Charles L. Hutchinson and Peck, who had all been elected at a previous informal meeting of the subscribers to serve as an unofficial executive committee, met to further consider the plans which Peck now said called for a building that would cost at least \$1,500,000.

About this time there began to emerge some opposition among the subscribers to the selection of Adler and Sullivan as the architects. Hutchinson, for one, was a Burnham and Root client and not a member of the Central Music Hall group.

On December 4, 1886 a meeting of the subscribers was held at which the following men were elected as the Chicago Grand Auditorium Association's first board of directors: Ferdinand W. Peck, N.K. Fairbanks, Edson Keith, Charles L. Hutchinson, Martin Ryerson, Henry Field, N.B. Ream, Eugene S. Pike, Charles Counselman, Albert A. Sprague, and William E. Hale.<sup>19</sup> The first meeting of the board of directors took place on December 11, 1886. Peck was appointed as President with the right to appoint a four member executive committee with the approval of the board.<sup>20</sup>

Just before this meeting all members of the board had been sent photographs of the recently completed second design, which was simpler than the first and was now ten stories high with a flat roof. A reproduction of this drawing is Plate 13 in Morrison's Louis Sullivan. The hipped roof of the tower in the earlier design had been replaced by a pyramid. This design still featured bay windows which were even more elaborate than those in the first. The fenestration of the earlier design had for the most part been preserved, but the buildings was now to be of masonry bearing wall construction. As in the

earlier design, the first two floors were of stone with the upper floors being of brick and terra cotta. A unique feature of the design, which would later disappear but which Sullivan would return to in his early skyscrapers, was the treatment of the tenth floor as an elaborately ornamented band pierced by small round windows.

Paul Mueller implied that the iron framing had been eliminated from the exterior walls because a more monumental appearance was desired by the client.<sup>21</sup> This would seem to make sense. There was nothing in the arrangement of the Auditorium that made an iron framed curtain wall necessarily desirable. The very heart of the building was taken up by the theater, which did not need natural light, but did require a solid fire wall to separate it from the adjoining hotel rooms and offices. The depth of the office and hotel portions was relatively shallow, and therefore nothing more than ordinary windows were required to properly light them. Under these circumstances there was no reason why Peck and his associates should have been interested in trying a new but not fully proven system. The old masonry bearing wall technique had already given Chicago a number of monumental new multistory buildings such as Burnham and Root's Rookery Building and S.S. Beman's Pullman Building, not to mention the latter's Studebaker Building. There just was no incentive to use the new system externally.

With the new design in hand the primary matter of business for the meeting of December 11 became the question of the selection of an architect. In order to get the views of the board members, Charles Counselman, a Burnham and Root client, put forth the motion that Adler and Sullivan be confirmed as architects. After lengthy discussion, which was not recorded, the motion was tabled.<sup>22</sup> The only competition that Adler and Sullivan really had was from Burnham and Root, whose clients included a number of the members of the Auditorium Association board, including William E. Hale, who even Sullivan in his autobiography acknowledges as being the most vocal in opposition to the appointment of Adler and Sullivan.<sup>23</sup> Loyalty to Burnham and Root was probably not the only reason for opposition. Adler and Sullivan at that point had never done a project even remotely near the size of the Auditorium whereas architects like Burnham and Root, William Le Baron Jenney, S.S. Beman and other prominent Chicago architects had. In the end, however, it was Peck's confidence in Adler and the support of the other Central Music Hall promoters who held the majority of Auditorium Association stock, that would secure the project for Adler and Sullivan.

At a meeting of the board on December 15, 1886<sup>24</sup> Peck proposed a compromise. If Adler was agreeable, outside "experts" would be brought in to review the design. Having received Adler's acceptance of this proposal, Adler and Sullivan were finally confirmed as architects on December 22, 1886.<sup>25</sup>

In the meantime the board had decided to call a special stockholders meeting for January 15, 1887 to consider the matter of raising the capital stock to \$1,500,000 and to change the name of the company to the Chicago Auditorium Association, both of which were done.<sup>26</sup>

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On January 17, 1887 the "experts", being only one, Professor William R. Ware, former head of the architecture school at M.I.T. where he had taught Sullivan and since 1881 holder of the same position at Columbia, delivered his report to the board. He endorsed (with only minor changes) the design that still had the pyramidal roof.<sup>27</sup>

On January 29, 1887 Peck called the directors to Adler and Sullivan's office for the purpose of examining slightly revised drawings which still featured the pyramidal roof.<sup>28</sup> At this meeting, it was decided to decrease the depth of the theater and increase the width of the Michigan Avenue wing of the hotel by five feet.

Roughly a week later Peck and Sullivan were in New York consulting with Ware about a new design.<sup>29</sup> This third design was the first to clearly resemble the building as constructed. The tower was now fifteen stories high but without the pyramidal roof. All the bay windows except those at the corners had been removed. The tenth floor, however, was still treated as an ornamental band. As in the previous designs the lower two floors were to be of stone, and all the other floors were to be of brick.

In the beginning of 1886, the lands on which the Auditorium was to be erected consisted of eleven lots of varying sizes held in the hands of six different owners. By the summer, ownership had been consolidated through options to purchase into five parcels in the hands of three parties, all of them Auditorium Association stockholders. Wirt D. Walker held two parcels, Ferdinand Peck and his brothers Clarence and Walter held one parcel, and the Studebaker Bros. Manufacturing Co. held two parcels.

In January and February 1887, leases were signed with these individuals (they had all executed their options) as lessors and the Auditorium Association as lessee. These leases were originally written for a term of 99 years. Under them the lessee was to build a single fireproof structure for purposes similar to those outlined in its charter on the full site without regard to the internal lot lines. Rents and terms for their re-evaluation after twenty years and every ten years thereafter were given. If the lessee violated the terms, the lessor was given the right to repossess the building. At the expiration of the lease the lessors were obliged to purchase the building from the lessee at fair market value as determined by an appraisal.<sup>30</sup>

By July 10, 1891, when new terms incredibly extending their leases for another 100 years at a fixed rental without re-evaluation were negotiated, Walker and the Pecks had sold their property to Henry J. Willing and the heirs of the estate of John F. Slater respectively.<sup>31</sup> The two Studebaker leases covering the smallest of the five parcels, although later transferred to other parties, remained as originally negotiated throughout the life of the Auditorium Association.<sup>32</sup>



At the January 17 meeting with Professor Ware, the board had also opened bids for the foundation work. Demolition of the existing structures, starting with those on Michigan Avenue, began almost immediately but was not completed until shortly after May 1, 1887 when the lease on the Brunswick Hotel at the northeast corner of Wabash Avenue and Congress Street expired. Excavation for the foundations began as the land was being cleared.

There was no general contractor on the Auditorium. Adler, who directed most of the construction work, acted much like a modern day "project manager" except that full time supervision of the work was in the hands of J.C. Nyman, an experienced builder hired and paid directly by the Auditorium Association.

It is commonly thought that Dankmar Adler was the sole engineering genius behind the Auditorium, but responsibility for designing its numerous systems was, as in any modern building of comparable size, spread over numerous consultants. The design of the structural framing for example, was placed in the hands of several engineers among whom was Paul Mueller of the Adler and Sullivan office and Charles L. Strobel and Edgar Marburg, consulting engineers for the Keystone Bridge Co., a Carnegie subsidiary which erected the trusses over the theater. The heating system was designed by E.F. Osborne, and the plumbing system was the work of William C. McHarg. The design of much of the various elevator, electrical, and service facilities was apparently the work of the manufacturers of the equipment.<sup>33</sup>

The use of consultants does not diminish the importance of Adler's role in the project. He had undoubtedly determined the general arrangement of the building, and it was he who selected, coordinated, and directed the work of the consultants.

General William Sooy Smith, another of these consultants and the noted foundation expert of the day, began making soil tests on February 24, 1887. To ascertain the nature of the soil, Smith took borings to a depth of 60 feet at twenty foot increments across the entire site. Soil pressure tests were then made by bringing large tanks, each set atop a one foot square post, onto the site and filling them with water to measure the settlement under loadings from 3,000 to 10,000 pounds per square foot.<sup>34</sup> Smith's final report was delayed until June 4 because of the demolition of the Brunswick Hotel.<sup>35</sup>

This report has not survived, but a number of sources agree that Smith recommended a maximum load of 4,500 pounds per square foot or roughly 1,000 in excess of that normally used in the area. This was the design load used in sizing the footings. The report was made at a time when it was anticipated that the excavation would go to a maximum depth of twenty feet below grade under the stage. This was long before installation of the hydraulic lifts for the stage was decided upon, which extended the excavation to a considerably lower depth. There seems to have been various figures of total settlement estimated during construction, but no one seems to have thought it would exceed six inches.<sup>36</sup>

Not long after Sullivan's return from visiting Professor Ware in New York, the plans were again revised. These revisions, which were completed in March 1887, were so extensive that they resulted in a new fourth design. It was according to this design that construction began. A perspective of it was published in The Inland Architect and News-Record of April 1887.

The exterior, which was still of brick and stone construction, differed from the third design notably in the omission of all the bay windows, the addition of another floor to the tower, bringing its height to sixteen stories, the elimination of the piers between the pairs of eighth and ninth floor windows, and the replacement of the ornamental band and round windows on the tenth floor with rectangular windows separated by columns and grouped in trees. It is these last two features, arrived at by a natural process of modifications extending back to the first design, that made the fenestration appear similar to that of Richardson's Marshall Field Warehouse. One more step, the change from brick to stone, would complete the process. Although both Adler and Sullivan would later acknowledge the influence of Richardson, this influence seems to have had its effect more in the elimination of ornament and the treatment of various moldings than in the fenestration. An intriguing feature of this design is the use of a number of details derived from Greece and Rome, notably the Doric or Tuscan columns, dentiled cornices, and classical molding profiles. Despite Sullivan's abhorrence of the classic revivals, he continued to use these details with increasing archeological accuracy to the end of his career.

Fortunately photostats of a substantial number of the working drawings for this design have survived.<sup>37</sup> The manner in which this design differs from the completed building can best be understood by comparing a longitudinal section based upon these drawings (HABS drawings 39 to 42 of 53) and a similar section of the completed building (HABS drawings 43 to 46 of 53).

It will be seen that in the hotel portion the main dining room at the tenth floor (shown in this design as hotel guest rooms), three floors of kitchens and servants quarters above the stage, and the banquet hall over the theater were added later.

In the office portion, the addition of another floor to the tower, bringing its height to seventeen stories, and the two story belvedere for the Weather Bureau above it were the only significant later additions. The elaborately treated windows of the fifteenth floor in this design, which were raised to the sixteenth floor in the completed building, were intended to define an open but roofed observation deck at this level. In the completed building, this level became the office of Adler and Sullivan with the observation deck being moved to the roof. The increase in height was made either for aesthetic reasons or a desire for more rental space. Although the addition of the hydraulic equipment for the stage required additional water tanks in the tower, space had already been provided for them as tanks were needed from the beginning for the passenger elevators.

In the theater, in addition to the elaborate stage equipment already referred to, the appearance of the proscenium would later be revised by eliminating the first arch to accommodate the elaborate organ installed at the north side of the proscenium opening. This change has adversely affected the acoustics. Annoying echoes can occasionally be heard in the forward seats of the house. Also in this design only the top gallery was to be closed off by moveable ceilings, whereas in the completed building this feature was applied to the lower gallery as well.

The orchestra pit in this design was somewhat more elaborate than as executed. Like that in the Festspielhaus at Bayreuth, it was to be recessed back beneath the stage apron. Beneath the floor of the pit was to have been an inverted masonry vault. This archaic feature was of doubtful acoustical value and was omitted in the completed building.

The necessity of providing suitable space for the mammoth auditorium left barely enough space on the site for the hotel and office buildings, let alone for the stage that had to be reduced to absolutely minimum acceptable dimensions, or a space 97 feet wide and 62 feet deep. As has already been noted this was much smaller than the stage of the temporary Opera Festival Hall, and it was considerably smaller than the stages of most of the great opera houses of Europe, although only slightly smaller than that of the Metropolitan Opera House in New York.

Although none of the drawings specifically showing the ornament of this design have survived, a well detailed drawing for the reducing curtain of the theater indicates that at this point in the development of his ornamental style, Sullivan was still somewhat attached to "Egyptoid" motifs. The prominent use of spirals in this ornament was a new element which Sullivan consistently used in 1886 and 1887, but which he had begun to suppress by the time fabrication of the interior ornament actually got under way.

On May 6, 1887, it was decided to substitute limestone for the brick and terra cotta above the second floor.<sup>38</sup> This change resulted in the fifth design. The only difference between it and the fourth, aside from the change of materials, was the recession of the spandrels between the eighth and ninth floor windows as had been done in the Marshall Field Warehouse.

Construction of the foundations began in mid April 1887 and by mid July they were substantially complete. As was typical of all commercial buildings in Chicago at that time the Auditorium rests upon floating foundations. The footings throughout the building rest on rafts consisting of two layers of twelve inch thick timber above which are set varying layers of steel rails set in concrete, which forms the base for the stone footings and foundation walls. The foundations of the tower and its interior columns all rest on a single timber and iron rail raft, the underside of which was set at a depth of eighteen feet below grade. The interior and rear bearing walls all rest on continuous abutment footings of varying depth, the deepest twenty feet below

grade. The exterior walls, except at the tower, and all interior columns rest on isolated spread footings as had been common practice in Chicago since the 1870s.

Although floating foundations would become obsolete with the development of more stable systems, beginning with the introduction of piling under S.S. Beman's Grand Central Depot in 1890 and the use of caissons under the west wall of Adler and Sullivan's Chicago Stock Exchange Building in 1894, the foundations of the Auditorium were certainly the most elaborate and advanced of this type then in existence. Among the more advanced techniques employed in their construction were the use of a cantilevered footing along the wall of the Studebaker Building, weighting the tower with brick and pig iron to prevent differential settlement between it and the adjoining walls as construction progressed, and constructing a new common foundation under the south wall of the Giles Building as the west half of the north wall of the Auditorium.

It is obvious, therefore, that the principal design overload in the completed building was not at the tower where the greatest settlement may now be observed (in excess of two feet) but rather occurs along the east half of the bearing walls at each side of the theater where, despite the excessive overloading, settlement, although sizable, has been relatively uniform. The only apparent explanation for this phenomenon are either that the foundations of the tower were inadequately designed or that the soil investigations failed to adequately describe the soil conditions under it.

By September 1887 most of the brick and iron work of the first floor had been completed. Most of the iron work in the building was done under a contract with Snead & Co. of Louisville, Kentucky. This firm was, however, only a foundry. Although they did produce all the cast iron columns and some of the ornamental ironwork in the Auditorium, they did not produce rolled structural shapes. These were obtained under subcontract from Carnegie's Homestead Works, which had several years earlier converted from the production of wrought iron to steel beams. All the rolled structural shapes in the Auditorium are, therefore, contrary to popular opinion, of steel not wrought iron.

On July 21, 1887, the executive committee asked Adler to make arrangements to modify the drawings so as to allow for the inclusion of the large organ in the theater.<sup>39</sup> He determined that the only suitable location for the principal chamber was to the north of the proscenium where extra space was available over the alley and under the so-called "Studebaker Addition", (a five story addition to the Studebaker Building over the alley which was erected simultaneously with the Auditorium and rests on the alley walls of both buildings). By November a contract had been negotiated with the Studebaker Co. to do this. It may be assumed then that the elimination of the first arch in the ceiling of the theater and the reworking of the proscenium had already been worked out. On August 1, 1888, a contract was awarded to Frank Roosevelt of New York to produce the organ.<sup>40</sup>

Shortly after it had been decided to do the entire exterior in stone, contracts were awarded to David Reed, the operator of a quarry at Bedford, Indiana, for the limestone and to a newly organized firm, the Minnesota Granite Co., for the granite.

Because Peck knew that Adler had scheduled the beginning of the granite work for September, he hoped to be able to induce President Grover Cleveland, who was to be in Chicago in early October, to lay the cornerstone. The President came to the Auditorium site to review a parade, but because of opposition from the labor unions over the use of some nonunion personnel on the project, he refused to lay it. In subsequent years this rebuff was conveniently overlooked by the Auditorium Association, whose promotional literature often stated that he had laid the cornerstone.

According to the contract with the Minnesota Granite Co., all of the granite should have been on the site at about the time of the President's visit, but at that point very little had arrived.

On December 9, 1887 the newspapers announced that the Republicans would hold their convention in the Auditorium the following summer. By this time still very little of the granite was in place, but the brick walls surrounding the theater were up to the seventh floor and the trusses over it were in place.

These trusses had been assembled over wood scaffolding that filled the theater. As construction progressed the scaffolding was slowly taken down. What was left by the time of the convention was removed and later reinstalled for the use of the plasterers and decorators.

By January 1888, it had become obvious that the Minnesota Granite Co. had defaulted. Under the terms of its agreement with the firm, the Auditorium Association took possession of the quarries and equipment and worked out an agreement with the Young and Farrel Diamond Stone Saw Co. of Chicago to take over the quarries and produce the stone.<sup>41</sup> Adler was immediately sent to Minnesota to clear up the various labor problems which had prevented completion of the work.

Earlier, Adler and Sullivan had been forced to alter the design of the Michigan Avenue balcony by adding cantilevered beams to carry the columns over the arches because large enough blocks of granite could not be gotten from Minnesota to support them.<sup>42</sup> Adler soon discovered that the Minnesota quarry could never have supplied the monolithic round columns of the first floor. Returning to Chicago he had then to travel to Maine where he was able to obtain them from the Hallowell Granite Co.

With the granite problem resolved, attention was turned to making the building ready for the Republican Convention. By March, the walls of the tower were up to the third floor and book tile provided by the Illinois Terra Cotta Lumber Co. at Pullman, supplier of all the fireproofing in the building, was being installed on the roof of the theater.<sup>43</sup> At the beginning of April, the

granite columns arrived from Maine. Later in the same month the roof of the theater and a temporary wood roof over the stage were completed, and the flooring of the main floor and balcony was installed. By the beginning of June, the remaining blocks of granite had arrived, and the exterior was completed to the fourth and fifth floors.<sup>44</sup>

Despite the inordinate delay in obtaining the granite (the only major delay to beset the enterprise) by early June everything was ready for the Republicans. The interior of the partially completed theater was decorated with bunting hung from the bare roof framing. Seating was provided for about 10,000 people, well over twice the capacity of the completed theater. This was accomplished by using the stage, main foyer, organ chamber, and box tiers for additional seating. The interior was lit electrically, using steam from the Studebaker Building to power the dynamo.

The Convention nominated Benjamin Harrison for the Presidency and Levi Morton for the Vice Presidency. Their victory in November assured Peck that he would have a President to dedicate the Auditorium even if he had not had one to lay its cornerstone.

In April 1888, while Milward Adams was traveling in Europe, he was sent by the Auditorium Association to Budapest to examine the all iron, hydraulically operated "Asphaelia" stage system as used in the opera house there to determine if the system would be suitable for the Auditorium.<sup>45</sup>

On June 1, 1888 following his return from Europe, Adams was given a contract to manage the theater and immediately took charge of operating it for the Republican Convention.<sup>46</sup> The successful administration of this position until the death of his wife in 1910 established him as one of Chicago's most prominent citizens, and as such his name was frequently associated with the important civic and cultural events of the city during this period.

In July 1888 a longitudinal section of the Auditorium showing the barrel vaulted dining room on the tenth floor, three floors of kitchens and servants quarters above the stage and the tower raised to a height of seventeen stories appeared in The Inland Architect and News Record. As the formal decisions to add these facilities were not made until July and September it must be assumed that these changes, which constitute the sixth design, were made in the spring of 1888.<sup>47</sup> Because this section shows the decorative scheme of the hotel and the theater to be almost identical to its completed form and since installation of the plastering and ornament began in the theater immediately following the convention, the design of much of the plaster ornament must also have been finalized at about the same time.

In the year since Sullivan had prepared his first ornamental scheme, his style had changed radically. Gone were the stiff stylized "Egyptoid" forms. They had been supplanted by more naturalistic foliage. Although the spirals were still there, a certain cabbage shaped leaf had now become the dominant motif.

Just as Adler had to rely upon engineering consultants, Sullivan also had to depend on a number of other men to carry out the building's decorative elements. In June 1888 a contract was awarded to James Legge to provide the ornamental plaster for the building, and by August 1889 at least ten men were being paid directly by the Auditorium Association for this work.<sup>48</sup> Sullivan became so attached to the work of one of them, Kristian Schneider, that in later years he relied upon him almost exclusively to model his ornamentation. By the beginning of 1889, the plaster work had progressed far enough for Healy and Millet, the decorators of the Opera Festival Hall, to begin doing similar work in the Auditorium. This firm not only designed all the stencils and stained glass, but they also selected the artists who would provide the sculpture and murals. These men included Johannes Gelert, the sculptor of the medallion busts in the theater and recital hall; Charles Halloway, the painter of the proscenium mural; Albert Fleury, the painter of the murals at each side of the theater and in the banquet hall; and Oliver Dennett Grover, the painter of the murals in the dining room. Healy and Millet were also probably responsible for selecting paint colors and determining that each room should be done in shades of one color rather than polychromatically as was more often the custom at that time.<sup>49</sup>

In July 1888 contracts were approved for the Crane Elevator Co. to provide the elevators for the tower and office building and for the Hale Elevator Co. to provide them for the hotel.<sup>50</sup> All of this equipment was to be hydraulically operated with large wood stave tanks on the fifteenth floor of the tower providing the source of power.

By the end of August 1888 construction of the office portion had already reached the ninth floor, while the Congress Street and Michigan Avenue fronts were lagging behind at the eighth and seventh floors respectively. Construction of the office building was being pushed well ahead of the hotel because the Auditorium Association wanted to have it ready for occupancy by May 1, 1889,<sup>51</sup> although it actually took until September before all the tenants could be moved in.

To speed construction, ornamental treatment in the office portion of the building was kept to a minimum. The lobby, for example, which was its most prominent room, was finished entirely in cast iron and plain white marble. Construction had proceeded so quickly that after completion some of the walls had to be repainted because the plaster was still wet when the first coat had been applied.<sup>52</sup>

Elevations showing alterations to the fenestration of the tower, whose height had already been established in the section published in July, appeared in The Inland Architect and News Record of October 1888. This was the seventh and last change to be made in the exterior design. Somewhat later, a small two story metal and terra cotta belvedere finished in concrete in imitation of the limestone below was added to the top of the tower to enclose the instruments used by the United States Weather Bureau, which had leased half of the seventeenth floor.<sup>53</sup>

In August 1888 Adler and John Bairstow, for many years stage carpenter at McVicker's Theater and recently appointed to the same position at the Auditorium, were sent to Europe to follow up on the trip made by Adams in the spring and another made by Peck in the summer.<sup>54</sup> After visiting many of the major theaters of England, France, Germany, and Austria-Hungary, they became convinced that the "Asphaelia" system would be ideally suited to conditions in the Auditorium, where the relatively small dimensions of the stage must have by then become the cause of some anxiety.

The "Asphaelia" system had been designed by Messrs. Dengg, Gwinner, Kautsky, Roth, and Riedinger of Vienna as a means of eliminating as much wood and other flammable materials as possible from the construction of stages. Replacing wood with iron, however, required greater sources of power, hence the elaborate hydraulic equipment.

Adler spent at least a week in Vienna working out an arrangement with the manufacturers of the "Asphaelia" equipment to procure a full set of drawings for installation of their system in the Auditorium and to purchase directly from them certain portions of the equipment which seems to have included the Cyclorama, a large moving backdrop depicting the sky in all possible weather, scenery, and some of the electrical equipment. Returning to Chicago on October 25, 1888 Adler left Bairstow behind to work out the details.

When the drawings arrived they were reworked to coincide with American machine practice<sup>55</sup> and in April 1889 the Crane Elevator Co. received a contract to produce the equipment,<sup>56</sup> which appears even in its minor details to be identical to the European installations. By November 1889 the bulk of the equipment was in place and ready for final testing by Fritz Kautsky, who had come from Vienna for the purpose. The Auditorium now possessed the most modern and elaborately equipped stage in America.

In December 1888, with the bulk of the building at its full height and the tower well under way and artificially weighted to its maximum loading, William Sooy Smith was awarded a contract to dig the pits under the stage for the hydraulic rams, which would extend the maximum depth of excavation to about forty feet below grade.<sup>57</sup> In the process of making these excavations, which were completed in the following February after taking the most elaborate precautions not to disturb the surrounding soil, the south wall of the tower settled four inches. This was the first sign that settlement was likely to be greater than had been anticipated.

Installation of the hydraulic rams had been further complicated by the necessity of waterproofing the stage basement, which was below the level of Lake Michigan, then roughly a block away. To accomplish this the J.L. Fulton Co. between April and August 1889 constructed a monolithic floor slab bent up at the edges, consisting of alternate layers of concrete, roofing felts, and asphalt held down by integral layers of steel rails.<sup>58</sup>



Throughout 1888 decisions had been made which increasingly expanded the building's facilities and consequently its costs. By November, the Auditorium Association was forced, having almost exhausted its capital, to issue \$900,000 worth of bonds.<sup>59</sup> These bonds, which bore 5% interest, would come due forty years later on February 1, 1929. Up to this point the Auditorium Association needed only to retrieve a sufficient return from the building to pay the operating expenses, rent, and taxes. Even though it had no obligation to pay a dividend to its stockholders, it was now obliged to eventually pay back the bondholders in full.

Strange as it may seem, it was not until October 1888,<sup>60</sup> long after plans for the hotel had been finalized, that the Auditorium Association began to give serious thought to its management.

In January 1889, at a meeting with several prospective hotel proprietors, Peck and other officials of the Association were rudely awakened to the reality of the return to be received from their new hotel when one of the proprietors told them that they could only expect \$50,000 a year or half the amount they had anticipated.

Following this meeting Peck traveled to New York to interview other prospective proprietors. Upon his return he recommended the approval of a lease with a syndicate headed by James H. Breslin and R.H. Southgate, both associated with, among other hotels, the Congress Hall at Saratoga.<sup>61</sup>

In April 1889 a ten year lease with this syndicate, which became known as the Auditorium Hotel Co., was finalized.<sup>62</sup> Under this agreement the costs of decorating the hotel were to be born equally by the Hotel Co. and the Auditorium Association. The Association agreed to pay a third of the salary of Armand Knyler, a "hotel interior expert", to work with Adler and Sullivan until the hotel was substantially complete.<sup>63</sup>

Before signing the lease Breslin and Southgate had insisted that a banquet hall be added to the hotel, and on April 20, 1889 Adler was accordingly instructed to provide for it.<sup>64</sup> The only available space was at the seventh floor to the west of the stage house and kitchens, above the roof of the theater. Adler's solution called for constructing the hall between two trusses bearing on the north and south walls of the theater. As these walls were already overloaded from the addition of the kitchens and servants quarters, construction of the hall was made as light as possible. The exterior was entirely sheathed in light metal siding and fireproofing was cut to a dangerous minimum, there being no fireproofing on the trusses at all.

By January 1889 construction on the tower had reached the fourteenth floor. The same month saw the completion of the electrical and boiler plants, making it possible for work on the interior to progress around the clock.<sup>65</sup> The boilers were located in two separate areas under the alley and court respectively, each with its own cast iron chimney. A third somewhat smaller chimney of similar construction served the kitchen in the basement under the bar and restaurant of the hotel.

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The electrical system installed by the Chicago Edison Co. was, because of the newness of the technology, cumbersome and primitive. Two separate self-contained power plants, one taking up almost the entire basement of the office building and another in the basement of the hotel, provided direct current power used primarily for lighting.

In February, under great pressure from the Auditorium Association, the Chicago City Council voted to widen Congress Street from 66 feet to 100 feet, which made it necessary to demolish portions of existing structures on the south side of the street.<sup>66</sup>

The tower was completed in June 1889, but because of Peck's desire to make the festivities surrounding the dedication of the theater as elaborate as possible, the ceremony of setting the last coping stone was put off until October 2.<sup>67</sup>

Although work on the exterior and internal structure was now done, the process of installing the sumptuous interior finishes continued on into the next year. These finishes included, in addition to those already mentioned, mosaic floors, scagliola columns, onyx wainscoting, and elaborately carved hardwood. Obtaining the large quantities of carved wood which Sullivan had called for delayed final completion of the building by several months because no single contractor had the facilities or the means to supply it all.

On December 7, 1889, with the theater's opening imminent, the stockholders voted to issue another \$500,000 worth of stock, raising the total to \$2,000,000.<sup>68</sup>

Arrangements for the opening of the theater were made well in advance, and all efforts were concentrated on making sure that it would open on time, even though the opening of the hotel had to be delayed. In April 1889 a contract had been approved for Henry E. Abbey, the opera impresario, to present a four week season of opera as part of the opening celebrations.<sup>69</sup> No expense was to be spared in this effort. Rather than bringing an established company to Chicago, Abbey was instructed to assemble his own, to be made up of the greatest singers of the day. Foremost among them was the celebrated soprano Adelina Patti.

On the night of December 9, 1889 with President Harrison and Vice President Morton on the stage and the cream of Chicago society in its boxes, the Auditorium Theater was formally dedicated. Following speeches by Peck, the President, and other dignitaries, the ceremonies concluded with the high point of the evening, Patti's rendition "Home Sweet Home."

The following evening the theater began its legendary career as an opera house with a performance of Charles Gounod's Romeo and Juliet with Patti as the prima donna.<sup>70</sup>

Although the hotel dining room was first used on January 29, 1890,<sup>71</sup> the opening of the hotel, which was to coincide with the dedication of the theater, was delayed until March because of the previously cited delays in completion of the interior finishes.<sup>72</sup>

In March a contract for the birch paneling in the banquet hall was awarded.<sup>73</sup> This work was finished in September and the hall was formally opened on October 14, 1890.

For their work on the Auditorium, Adler and Sullivan received \$50,000 in cash and \$25,000 in stock.<sup>74</sup>

In the popular mind the Auditorium was an immediate success. It was clearly the largest and most elaborate structure of its kind on the continent.

The publicity which followed its completion gave Adler and Sullivan an international reputation and led to other important commissions for the firm including the distinction of being among the very elite group of architects selected to design the buildings of the World's Columbian Exposition held in Chicago in 1893.

Before the Auditorium, Adler and Sullivan had been content to design residences, factories, and loft buildings for a clientele that was heavily Jewish. Now their reputation drew them into the field of tall commercial buildings where they were ill-equipped to survive. Unlike D.H. Burnham, Adler had only a few contacts in big business circles and by 1895, following a disastrous depression, they had been mostly exhausted.

In that year, Adler retired from the architectural profession to enter the employ of the Crane Elevator Co. as a consultant, leaving Sullivan alone to continue the work of their office on the sixteenth floor of the Auditorium tower. There Sullivan remained until 1918 when, unable to pay the rent, he was forced to take smaller quarters on the Wabash Avenue side of the building, which he soon gave up in disgust. With ever fewer clients and persistently holding to his faith in an individualistic vernacular architecture, he died in poverty on April 14, 1924.

Adler on the other hand soon became dissatisfied with his work for Crane and returned to the architectural profession at the beginning of 1896. He established an independent office on the Wabash Avenue side of the Auditorium where he remained until his death on April 16, 1900. In his last years, Adler on occasion worked with Sullivan as an associate architect, but there was never any hope that their partnership would be renewed.

As the principal training ground of those who would later form the "Prairie School" movement, foremost of whom was Frank Lloyd Wright, who had entered their office in 1888 as a draftsman of ornament for the Auditorium, the partnership of Adler and Sullivan, despite its short and rocky history, was to have a greater effect upon American architecture in the next century than any of its larger and more stable competitors.

Whereas the Auditorium Theater was never expected to show a profit and the office building was conceived more or less as a gamble, the hotel was not only expected to offset the deficits of operating the theater but to pay a dividend to the stockholders as well. Under such circumstances it would seem that the Auditorium Association, or its architects, or both, were negligent in not paying greater attention to the planning of this vital part of the building. From the beginning, efficient design of the hotel had been hampered by its lack of depth along Congress Street, which forced the guest rooms in that area (a sizeable proportion of the hotel's total of 400) to be forever overstaffed, because for the first six floors the corridor served rooms on only one side. It soon became obvious to the hotel management that too much space had been devoted to servants' quarters and public facilities. In later years it would also be noted that using the entire first floor for public facilities had wasted valuable commercial street frontage.<sup>75</sup> While great attention had been paid to the hotel's public spaces, not enough consideration was given to the guest rooms. Designed according to the prevailing standard of a first class hotel of the 1880s, by the mid 1890s the lack of private baths in all but the best suites had become the hotel's most serious deficiency.

In the spring of 1892, William Fitzgerald, a disgruntled owner of property that had been truncated with the widening of Congress Street, announced that he had obtained options on five parcels of land at the southwest corner of Congress Street and Michigan Avenue with the intention of erecting a ten story hotel to be designed by Clinton J. Warren, the architect of several successful new hotels.<sup>76</sup>

Realizing that a new hotel in open competition with the already marginal operation in the Auditorium would doom the entire enterprise, Peck and the Auditorium Hotel Co. formed a new corporation, the Congress Hotel Co. with capital stock of \$1,200,000 and bought out Fitzgerald.

To allay fears among the Auditorium Association's stockholders, Peck informed them immediately of the nature of the new company and offered them its shares. In return for using the name "Auditorium Annex", the new company was to pay a fee to the Auditorium Association based upon a percentage of the gross receipts after payment of a dividend to the Congress Hotel Co. stockholders. The two hotels were both to be operated under the management of Breslin and Southgate with the Auditorium as the "American department" and the Annex as the "European department." Although the new hotel was to be built according to Warren's plans, Adler and Sullivan were to act as consultant architects. This alone accounts for the similarity in fenestration between the two buildings, as Warren's original design was quite different from the executed building.

After taking control on the property, the new company purchased an additional lot to the south on which it constructed a new power plant, designed by Adler, that was to serve both buildings. The removal of the old power and electrical plant made badly needed space available to the Auditorium Hotel Co. in the basement and therefore increased the rent derived by the Auditorium

Association. The new electrical plant was expected to save the Auditorium Association \$20,000 annually as major improvements in electrical technology had made the old plant obsolete.<sup>77</sup>

Because both hotels now operated under the same management and used the same power plant, it was necessary to connect the two by separate service and pedestrian tunnels under Congress Street. The marble lined pedestrian tunnel entered the Auditorium at the east end of the Congress Street front and led directly to a staircase going up under the grand staircase to the hotel lobby.

In later years as the Congress Hotel Co. constructed one addition after another, the rates charged to the Auditorium Association for heating became a source of conflict between the two companies.<sup>78</sup> Although the electrical power plant was eventually cut off, the Auditorium continued to receive heat from the new plant until World War II, at which time the pedestrian tunnel was also abandoned. Peck's quick action had temporarily overcome some of the Auditorium Hotel's worse problems, and for the moment the future looked a bit brighter.

Construction of the Auditorium had cost a little over \$3,000,000. With capital stock of \$2,000,000 not fully subscribed and \$834,000 acquired from the sale of bonds, plus costs incurred in the operation, left a sizeable floating debt. In an effort to consolidate its indebtedness into one package, the Auditorium Association decided in May 1892 to issue another \$1,600,000 in 5% bonds which would come due fifty years later on February 1, 1942.<sup>79</sup> The sale of \$766,000 of these bonds enabled the Association to pay off the floating debt, but in the end the first bond issue was not reduced.

Construction of the Annex enabled the Auditorium Association to take full advantage of the brisk World's Columbian Exposition tourist trade, and at the end of 1893 it declared its first and only dividend.<sup>80</sup>

The optimism spawned by the Exposition began fading almost as soon as its gates closed. As the years went by, it became increasingly clear that the Auditorium was able to earn only a small profit that could not be returned to the stockholders as long as the large bond of indebtedness remained.

In 1900, in an effort to quell rising discontent among the stockholders, Peck resigned as the Auditorium Association's president<sup>81</sup> to be succeeded by Henry Dibblee. He remained on the board of directors until at least 1907. Because of the lack of suitable records, the extent of his involvement after that year is not known, but at the time of his death on November 4, 1924, he still owned most of his original shares in the company.

The Auditorium's inability to produce a suitable return was not its only problem. Settlement, demanding constant repairs, was becoming quite noticeable, particularly in the theater where a difference in settlement between the perimeter walls and the interior columns had already badly deformed many of the floors. This resulted because the column footings had

been sized to carry a live floor load of 75 pounds per square foot, which never occurred, and therefore overdesigned, they had barely settled. By 1900, the rate of settlement had begun to slow down enough for Adler to consider taking remedial action. He approached Paul Mueller, by then a general contractor, about undercutting the basement columns and then dropping the whole structure to level the floors. Mueller informally agreed to do the work, but because of Adler's death two months later, nothing was done about it.<sup>82</sup> The settlement continued for another decade before it finally became negligible.

During Dibblee's tenure as president, a number of changes were made in the building. In 1901 exterior fire escapes were added by order of the City of Chicago.<sup>83</sup> In 1904, following the disastrous fire in the Iroquois Theater, the Auditorium and all of the city's other theaters were closed. Before the Auditorium could fully reopen, a wall separating the second floor foyer from the main floor had to be constructed, and various changes had to be made to the stage including fireproofing the iron reducing curtain, installing a sprinkler system, and constructing four large flues above the stage house.<sup>84</sup>

Now that Adler was dead, the Auditorium Association began to rely on Sullivan, who as a stockholder knew the building's problems, for architectural advice regarding schemes to make it more profitable. The most radical of these schemes, which was presented to the executive committee on January 10, 1906, called for the demolition of the theater for a twenty or twenty-two story addition that would increase the capacity of the hotel to 900 rooms. The addition plus the renovation of the remaining parts of the original building was to cost \$3,056,000.<sup>85</sup> How Peck and the others, who had labored so hard to build the theater, reacted to this proposal by one of its creators is not known, but fortunately nothing could be done about it, because the Association was still bound by the hotel lease which had been extended to 1909 by renegotiation in 1895.<sup>86</sup>

In 1908 R. Floyd Clinch succeeded Dibblee to become the Auditorium Association's last and longest termed president.<sup>87</sup> Although the years of his administration were to be the most eventful in the building's history, only a very generalized description of the period can be assembled because the Association failed to keep the kind of systematic records of its proceedings that it had maintained during the tenure of his predecessors.

Unlike the backers of New York's Metropolitan Opera House, the founders of the Auditorium Association had never considered resident companies for the theater. Instead they had hired Milward Adams, who kept it stocked with the greatest artists of the day by booking them while they were on tour individually or with traveling companies.

The only major permanent tenant the theater had under Adam's management was the Chicago Symphony Orchestra which Theodore Thomas brought to the Auditorium in 1891. The theater's great size, which discouraged the sale of season tickets, and its lack of permanent storage and rehearsal facilities for the

orchestra's year-round use proved to be too much of a burden, and in 1904 the orchestra moved to its present home, Orchestra Hall.<sup>88</sup>

This method of operating the theater finally came to an end in the spring of 1910 with a four week season given by the full Metropolitan Opera Co. during which the great tenor Enrico Caruso appeared for the last time in opera in Chicago.<sup>89</sup>

The Metropolitan had just vanquished its competition, Oscar Hammerstein's Manhattan Opera Company. To insure that Hammerstein would not try to start another company, some of the Metropolitan's supporters combined forces with several influential Chicagoans and formed the Chicago Grand Opera Company. The new company immediately secured the services of most of the Manhattan's Company's staff including singers and purchased all its sets.<sup>90</sup>

The Opera Company apparently negotiated a lease with the Auditorium Association which gave it complete control of the theater.

During the summer of 1910, the interior of the theater was redecorated and extensively remodeled under the direction of architect Benjamin Marshall, who had become an Auditorium Association stockholder. A row of boxes was installed across the rear of the main floor. This was later increased to two rows.<sup>91</sup> It seems probable that the realignment and consequent raising of the stage floor as well as the expansion of the orchestra pit through the removal of the first two rows of seats was also done at this time.

In spite of numerous reorganizations and changes in the name of the company, due to frequent financial failures of the opera seasons, the Auditorium remained its home for the next nineteen years.

Following the expiration of the hotel lease in 1909, the Auditorium Association took over its management.<sup>92</sup>

In 1910, all the guest rooms on the Michigan Avenue side of the hotel were remodeled to include new bathrooms, and the basement of the hotel was reworked. This work was also done by Marshall, who remained the Auditorium Association's architect until the company dissolved.<sup>93</sup>

Surviving drawings indicate that Marshall had also planned further renovation work. One of his schemes called for gutting the entire first floor of the hotel. The lobby was to be moved to the Congress Street side and the old lobby was to be turned into shops. Although this might have improved the Association's financial position, no effort seems to have been made to carry it beyond the preliminary drawings.<sup>94</sup>

The renovation of the building did not significantly increase the Auditorium Association's profit. Although the ground rents had increased only slightly because of Peck's foresight in renegotiating the leases, increases in the rents paid by the tenants were not enough to offset increases in the property taxes which had risen from \$22,707.78 in 1890 to \$145,289.25 in 1922.<sup>95</sup>

The small profits which the Auditorium Association claimed over the years often did not really exist, because it had consistently failed to take depreciation into account when assembling its figures. It was not until after 1918, when proper charges for depreciation began to be made, that it became obvious that the building was really being run at a loss.<sup>96</sup>

In 1923, with \$834,000 of the first bond issue and \$541,000 of the second bond issue still outstanding, the Auditorium Association sued the landowners in order to force them to make changes in the leases which would allow the Association to demolish the Auditorium and erect a more profitable building on the site.<sup>97</sup> The Association had offered the landowners very good terms if they would consent to the changes, but the attorneys for the most vocal of them, Mark S. Willing, advised him and the other defendants that as trustees, representing parties as yet possibly unborn, they could later be held liable for any adverse circumstances which might result from the somewhat speculative nature of the Association's proposal. Unavoidable disaster could not adversely effect their liability, but avoidable disaster could lead to their ruin.<sup>98</sup>

The suit was dragged from one court to another for four years with each court taking the position that it could not rule on the case until provisions of the leases were actually violated.

During the hearings, the Association in desperation tried to prove that not only was their building leading them to bankruptcy but also that it was in danger of collapse. Although no ruling was ever made on this latter charge, much of the testimony taken in connection with it was made by men like Paul Mueller who helped build the Auditorium. This testimony remains one of the most important sources of information on the building's construction.<sup>99</sup>

The Auditorium had become, as Peck would have wished, one of Chicago's most venerable institutions, but nothing could save it from bankruptcy when the bonds came due on February 1, 1929.

It has often been said that Samuel Insull's megalomania led to the construction of the Civic Opera House and the abandonment of the Auditorium as the home of opera in Chicago. The facts show otherwise. Insull owned a substantial number of shares in the Auditorium Association, and throughout the 1920s he had made every effort to secure desirable tenants for the office building.<sup>100</sup> His primary allegiance was, however, to the Opera Company. As a stockholder of the Association, he knew that its inevitable bankruptcy could seriously if not permanently damage the opera's future.

As the collapse of the Auditorium Association's suit began to appear imminent, Insull began promoting construction of the new opera house.

On the evening of January 16, 1929, days before the bonds would come due, the Auditorium Theater ended its career as Chicago's home for opera with a performance of Romeo and Juliet, the same opera that had opened it barely forty years before.<sup>101</sup>



In its beyday, despite the lack of suitable storage for the sets and its relatively small stage, as many as 38 different operas had been performed in the Auditorium during one season.<sup>102</sup>

The Auditorium's new and acoustically inferior successor opened the following fall amid great rejoicing, but the euphoria was to be short lived. The Chicago Civic Opera Company was soon to become another casualty of the collapse of Insull's empire during the depression of the 1930s.

By the end of 1929, R. Floyd Clinch, who had been appointed Receiver for the now bankrupt Auditorium Association, and some of the other directors secured the consent of most of the stockholders to place their shares in a common fund in the hope that some settlement could be reached with its creditors, but their efforts were in vain.<sup>103</sup>

Clinch died a year later, and another Receiver was appointed who continued to operate the building. During this period the theater remained closed.

The landowners had convinced Clinch to pay the taxes for 1928 which came due in 1929 using most of the Association's remaining assets. These were the last taxes to be promptly paid.<sup>104</sup>

The Receiver then began to default in payment of the rent, and the landowners were forced to institute foreclosure proceedings against him. In 1932, having exhausted all funds and income available to him, he returned the building to the landowners in accordance with the original terms of the leases.

In 1930 and 31 the landowners had taken bids to demolish the building, the lowest of which was \$400,000. Unable to afford this, they were forced to either leave the building vacant or manage it themselves. As the former course would not only be dangerous but would also badly effect land values along south Michigan Avenue, the owners of the two largest parcels, the Peck and Walker properties, formed the Auditorium Building Corporation headed by John Goodridge, Mark Willing's agent, to take over the building's management. The operation of this company was complicated by the decision of the Northwestern Mutual Life Insurance Co., owners of the Studebaker parcel, not to become part of it, and therefore, even minor decisions affecting that part of the building could not be made without first seeking their consent.<sup>105</sup>

In 1932 and 33, hoping to take advantage of the tourist trade accompanying the Century of Progress Exposition, a major renovation of the entire building was undertaken under the direction of the architectural firm of Holabird and Root.<sup>106</sup>

As part of this work major repairs were made to the roof trusses of the theater and the footings of the tower. Although the owners less than a decade before had scoffed at the evidence given by the engineers who had testified on behalf of the Auditorium Association's position that the building was unsafe, these repairs were made almost solely in areas where their testimony had indicated that structural defects existed.<sup>107</sup>

The hotel was redecorated and partially refurnished, but no effort was made to correct its most serious defect, the lack of bathrooms along the Congress Street side.

Although the theater was redecorated in a color scheme vaguely reminiscent of the original, a number of strange changes were made. Crystal chandeliers were hung in the foyers. The elaborate radiators surrounding the columns in the lobby were removed, but the strangest change of all was the removal of the stained glass lunettes over the doors leading from the lobby into the foyer, because they, "...never did more than obscure fine vistas."<sup>108</sup>

The lighting panel on the stage was replaced, and much of the wiring in the theater was redone.

The total cost of work in the theater alone was roughly \$125,000.

The theater was reopened in December 1932, and throughout the thirties numerous important theatrical and musical events were staged there. In its last season these included performances by soprano Kirsten Flagstad, violinist Fritz Kreisler, pianist Sergei Rachmaninoff, the Ballet Russe de Monte Carlo, and the Philadelphia Orchestra with pianist Artur Rubinstein as soloist.

No amount of revitalization could overcome the effects of the depression which further reduced the Auditorium's already meager income. Whatever profits were produced were completely absorbed by the taxes. By 1941 the Auditorium Building Corporation, which owed roughly \$1,150,000 in back property taxes and penalties, had had enough. Under constant threats from an unsympathetic taxing authority, Goodridge and his associates finally decided to close the building. By August of that year all of the tenants, except some occupying the first floor stores, had left.<sup>109</sup>

The failure of the Auditorium as a private enterprise was now complete, but over the years it had become such an important fixture in Chicago's cultural life that even before the doors closed a not-for-profit corporation, the Auditorium Music Foundation, was chartered with Mayor Edward J. Kelly's blessings to take over ownership and operate the building as a musical center for the city. The first goal of this foundation, which had been formed by several prominent citizens including Robert Hall McCormick, Frank Whiston, Phillip F.W. Peck, and Goodridge himself, was to raise \$400,000 in donations to reopen the theater the following fall.<sup>110</sup>

The fund drive, however, progressed slowly, and by July 1942, after the building had been vacant for almost a year, only \$250,000 had been raised. In that month all the building's movable contents were auctioned off, including the Roosevelt organ, which eventually found its way to the University of Indiana at Bloomington, where it remains.<sup>111</sup> Exactly who benefited from this sale is unclear, but it seems likely that it was held to give some satisfaction to the Cook County Assessor.

The Cook County Board had less than two months before voted to institute tax foreclosure proceedings against the owners, as it was rumored that the Federal Government might requisition the building for the war effort, thereby nullifying the county's claims for back taxes. This effort to gain full control of the building was partially thwarted because the taxes on the Studebaker lots had been paid in full by the Northwestern Mutual Life Insurance Co.<sup>112</sup>

The city eventually succeeded in acquiring a tax title to the other parcels, however, and by September 1942 the building had been taken over by the city to be used as a City Service Men's Center. During this period much of the elaborate plaster work and wood trim was painted over and the theater stage was turned into a bowling alley. The bar, one of the building's most famous features,<sup>113</sup> was destroyed to make way for a 150 feet long lunch counter. When the building closed in 1941, the heating supply from the Congress Hotel was permanently cut off. In order to use the building, the city had to reinstall boilers in the area originally reserved for them under the main court.<sup>114</sup> In later years these facilities were expanded, but since the construction of the eighteen story reinforced concrete Herman Crown Center on the site of the Giles Building in 1968-71, the power plant has been moved to the basement of that building.

The Service Men's Center remained in the Auditorium for a short period after the war was over, but in August 1946, the newly organized Roosevelt College, which had reached an agreement with the city that allowed it to take over the operation of the building, took its first step in acquiring ownership of the property by buying out the owners originally represented by the Auditorium Building Corp. for \$400,000.<sup>115</sup> The Auditorium Music Foundation was dissolved in 1946 and its assets returned. Roosevelt's avowed intention to eventually restore the theater was enough to satisfy all concerned.

Apparently during the war ownership of the Studebaker property had been acquired by attorney Abraham Teitelbaum. In an effort to get Roosevelt College to pay an exorbitant price for this parcel, Teitelbaum had chicken wire stretched across all openings leading to his portion of the building, which now again contained the heating plant. It was not until February 1947 that Teitelbaum finally agreed to sell out for \$402,000, half the amount he had originally demanded.<sup>116</sup>

In its first years in the Auditorium Building, Roosevelt used its available funds to convert the hotel rooms and offices into classrooms. In the process, a number of unfortunate changes were made, the most noticeable being the partitioning off of the north third of the hotel lobby for use as a bookstore.

Although Roosevelt College now had full control of the building, the matter of the unpaid taxes still had to be settled. In 1952, in exchange for an easement which would allow the city to cut an "arcade" through the first floor of the Congress Street side as part of the widening of the street for the

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Congress Street (now Eisenhower) Expressway, the taxes were waived, and Roosevelt finally gained full title to the property.<sup>117</sup>

Construction of this "arcade" was carried out by the city during the mid 1950s. In the process, half of the theater lobby, the restaurant, and what remained of the former bar were permanently destroyed.

The centennial of Louis Sullivan's birth in 1956 revived interest in the Auditorium Building and the restoration of its long dark theater and other public spaces.

In 1957 Roosevelt undertook its first major restoration project with the partial restoration of the former banquet hall as the Rudolf Ganz Recital Hall. The following year the former ladies parlor at the southeast corner of the second floor was restored as the Louis Sullivan Room. In 1962 a partial restoration of the former hotel lounge at the second floor was undertaken. All these projects were done under the direction of architect Crombie Taylor.<sup>118</sup>

In 1960, under the leadership of President Edward Sparling, Roosevelt established the Auditorium Theater Council to undertake the restoration of the theater. Under the chairmanship of Beatrice Spachner, a trustee of the university, the Theater Council was able to raise over \$3,000,000 and in 1967 the partially restored theater was reopened. Since that time, the Theater Council has continued the restoration work and made necessary improvements to the stage and dressing rooms. This work has been done under the direction of the architectural firm of Harry Weese and Associates.<sup>119</sup>

In 1973 the Michigan Avenue lobby was partially restored under the direction of the architectural firm of Brenner, Danforth and Rockwell.<sup>120</sup> Although this restoration accomplished notable results including the restoration of the mosaic floor which had been covered by rubber tile since the 1930s and the removal of the partition built for the bookstore, the wood trim was not restored to its original condition and large light fixtures were hung from the ceiling where originally only small clusters of light bulbs were located. These defects were, however, not part of the architects' work.

In 1975 the stained glass along the former main stairway of the hotel and in the Ganz Recital Hall was restored.<sup>121</sup>

In 1980 further restoration work was under way in the south alcove of the former dining room, which is now the reading room of the university's library, and in Ganz Hall. This work was being done under the direction of architect John Vinci.

Construction work done for the university has not always produced favorable results such as these. In 1963 and 64, the stores along Wabash Avenue were gutted to provide space for the university's bookstore. Unfortunately the lobby of the office building, which had survived virtually without change, was also gutted.

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In 1972 and 73 in order to gain needed office space, the tower, which had remained vacant since 1941, was remodeled, and an addition, filling the entire main court, was constructed. In the process the north alcove of the former dining room was altered almost beyond recognition, and the tanks and standpipe in the tower, which could still have been used to operate the stage equipment, were removed.

By 1972, it had become clear to the university that the work of restoring and adopting the building to new functions had up to that time been done in a rather sporadic way with inconsistent results. To avoid this in the future, the Board of Trustees resolved on December 21 of that year that all such work should be done in consultation with one or more architects known for their competence in adaptive use and restoration work and who were thoroughly familiar with the work of Adler and Sullivan. Since that time, all work in the building, except in the theater, has been directly or indirectly under the supervision of the architectural firm of Danforth, Rockwell, Carow, under whose direction an exhaustive master plan for future work has been prepared.

Prepared by Charles E. Gregersen, AIA, 1980.

FOOTNOTES TO PART I

1. Hugh Morrison, Louis Sullivan, Prophet of Modern Architecture (New York: The Museum of Modern Art and W.W. Norton Company, Inc., 1935), pp. 283-293.
2. Throughout the first half of 1879 Burling's name appears prominently in the Chicago newspapers in connection with this case. Following his acquittal, he returned to the practice of architecture in partnership with a former Burling and Adler employee, Francis M. Whitehouse.
3. Prior to this time none of the auditoriums designed by Adler reveal any particular knowledge of acoustics.
4. John Scott Russell, "Elementary Considerations of Some Principles in the Construction of Buildings Designed to Accommodate Spectators and Auditors," The Edinburgh New Philosophical Journal, Vol. XXVIII, April-October 1839.
5. The design of the exterior looks most like that for the First National Bank Building in Chicago of 1882 by Burling and Whitehouse and may actually have been done by one of these men.
6. The dates of Sullivan's entry and promotion are derived from directory entries and his own and partially erroneous account in The Autobiography of An Idea.
7. There is a drawing by Sullivan in red ink in the Art Institute of Chicago with the date April 4, 1880 filled in his hand under Strippelman's letterhead.
8. A.T. Andreas History of Chicago (Chicago: A.T. Andreas Company, 1884-86), Vol. 3, pp. 649-650, 652-653.
9. S.G. Pratt, First Chicago Grand Opera Festival at the Exposition Building (Chicago, 1885), pp. 10-12.
10. Paul Gilbert & Charles Lee Bryson, Chicago and Its Makers (Chicago, 1929), p. 625.
11. Morrison, p. 59.
12. Chicago Inter Ocean, May 3, 1885.
13. Chicago Tribune, November 8, 1885.
14. Chicago Herald, June 27, 1886.

15. Records of Chicago Auditorium Association Originally Chicago Grand Auditorium Association, December 4, 1886 to November 7, 1906, p. 2, in Roosevelt University Archives, Chicago, Illinois (hereafter cited as Records).
16. Records, p. 5.
17. "Annual Report of the President to the Stockholders . . . December 1, 1888" in Early History and Press Clippings Chicago Auditorium Association 1887-1889 in Art Institute, Chicago, Illinois (hereafter cited as Early History).
18. Testimony of Paul Mueller, Chicago Auditorium Association vs. Mark Skinner Willing and The Northern Trust Company, as Trustees, etc., et al., United States Circuit Court of Appeals for the Seventh Circuit, October Term, A.D. 1925, No. 3733, p. 448. Copy in Roosevelt University Archives, Chicago, Illinois (hereafter cited as C.A.A. vs. Willing & N.T.C.).
19. Records, pp. 8-9.
20. Records, p. 24.
21. Testimony of Paul Mueller, C.A.A. vs. Willing & N.T.C., p. 448.
22. Records, p. 27.
23. Louis H. Sullivan, The Autobiography of An Idea (Washington: Press of the American Institute of Architects, 1924), p. 294.
24. Records, p. 32.
25. Records, p. 37.
26. Records, pp. 28 & 48.
27. Willard Connely, Louis Sullivan. The Shaping of American Architecture (New York: Horizon Press, 1960), pp. 113-115.
28. Chicago Evening Journal, January 29, 1887.
29. Letter of Feb. 12, 1887 from D. Adler to A.W. Sullivan in the Newberry Library, Chicago, Illinois.
30. Records, pp. 60, 64-68.
31. Records, pp. 178-179.

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32. Fisher, Boyden, Kales and Bill, Chicago Auditorium Association vs. Ambrose Cramer, Trustee, et al., Circuit Court of Cook County. Copy in Roosevelt University Archives (hereafter cited as C.A.A. vs. Cramer).
33. Testimony of Paul Mueller, C.A.A. vs. Willing & N.T.C., pp. 441-443.
34. "Annual Report of the President to the Stockholders . . . December 1, 1888" in Early History.
35. Records, p. 76.
36. Testimony of Paul Mueller, C.A.A. vs. Willing & N.T.C., p. 461.
37. Plans of the Auditorium Building, Chicago, Adler & Sullivan, architects. From the office of the Auditorium Building Corporation. In the Art Institute, Chicago, Illinois (hereafter cited as Plans).
38. Minutes of Executive Committee of Chicago Auditorium Association, May 3, 1887 to December 11, 1907, p. 11, in Roosevelt University Archives (hereafter cited as Exec. Comm.).
39. Exec. Comm., p. 21.
40. Records, p. 107.
41. Exec. Comm., p. 33.
42. Testimony of Paul Mueller, C.A.A. vs. Willing & N.T.C..
43. Chicago Tribune, March 11, 1888.
44. Photos and miscellaneous clippings in Early History.
45. Exec. Comm., p. 45.
46. Records, p. 103.
47. Exec. Comm., pp. 50 & 56.
48. Exec. Comm., p. 144.
49. Exec. Comm., p. 86.
50. Exec. Comm., p. 52-53.
51. Exec. Comm., p. 55.
52. Exec. Comm., p. 234.
53. Exec. Comm., p. 67.



54. Exec. Comm., p. 53; and letters from D. Adler to his wife in the Newberry Library describing this trip.
55. Testimony of Paul Mueller, C.A.A. vs. Willing & N.T.C., p. 441.
56. Exec. Comm., p. 91.
57. Exec. Comm., p. 68.
58. Exec. Comm., p. 94.
59. Records, pp. 118-119 & 121.
60. Exec. Comm., pp. 73 & 77.
61. Records, p. 135.
62. Exec. Comm., p. 99.
63. Exec. Comm., p. 99.
64. Records, p. 139.
65. Chicago Tribune, January 25, 1889.
66. Miscellaneous clippings in Early History.
67. Records, p. 147, and Early History.
68. Records, p. 147.
69. Records, p. 139.
70. Edward C. Moore, Forty Years of Opera in Chicago, 1930, pp. 7-14.
71. Chicago Tribune, January 30, 1890.
72. Records, p. 167.
73. Exec. Comm., p. 202.
74. Exec. Comm., p. 79.
75. Testimony of John Goodridge, State of Illinois vs. Roosevelt College, et al., Superior Court of Cook County, Case No. 48S15365, December 17, 1952, p. 38. Copy in Roosevelt University Archives (hereafter cited as State of Illinois vs. Roosevelt College).
76. Miscellaneous clippings in Early History.

77. Records, pp. 212-213.
78. Records, pp. 323, 327, 358-359, and minutes of a meeting of the Executive Committee on Aug. 28, 1908 in Roosevelt University Archives, File Box "N".
79. Records, pp. 197 & 201.
80. Records, p. 228; State of Illinois vs. Roosevelt College, p. 31.
81. Records, p. 282.
82. Testimony of Paul Mueller, C.A.A. vs. Willing & N.T.C., pp. 446-447.
83. Records, p. 299.
84. Records, pp. 350-351.
85. Exec. Comm., p. 468.
86. Records, p. 251; Exec. Comm., p. 415.
87. Directory entries.
88. George Upton, Theodore Thomas, A Musical Autobiography, Vol. 1, pp. 100-103.
89. Moore, pp. 49-50.
90. Moore, pp. 51-55.
91. Moore, p. 58.
92. Directory entries.
93. Drawing in Roosevelt University Physical Plant Department.
94. Drawing in Roosevelt University Physical Plant Department.
95. C.A.A. vs. Cramer, p. 30.
96. C.A.A. vs. Cramer, pp. 28-29.
97. C.A.A. vs. Cramer.
98. Anticipatory opinion from Hamlin, Topliff, & Cooper to Mark S. Willing & Ambrose Cramer of September 1, 1922, p. 30, in Roosevelt University Archives.
99. C.A.A. vs. Willing & N.T.C.

100. State of Illinois vs. Roosevelt College, p. 33.
101. Moore, p. 334.
102. Moore, p. 365-367, the season of 1916-17.
103. Chicago Auditorium Association: Stockholders Protective Agreement, Dated December 1, 1929, in Roosevelt University Archives.
104. State of Illinois vs. Roosevelt College, p. 37.
105. State of Illinois vs. Roosevelt College, pp. 34-35, & 40.
106. Chicago Tribune, December 11, 1932.
107. C.A.A. vs. Willing & N.T.C.
108. Chicago Tribune, December 11, 1932.
109. Chicago Daily News, May 29, 1941.
110. Chicago Tribune, June 24, 1941.
111. Chicago Sun Times, July 5, 1942.
112. Chicago Daily News, May 28, 1942.
113. Journal of the American Society of Architectural Historians, Vol. 2, No. 3 (July 1942), p. 33.
114. Interview with Max M. Nichols of Roosevelt University Physical Plant Department.
115. Chicago Tribune, April 17, 1947.
116. Chicago Tribune, October 5, 1946, February 27, 1947.
117. Interview with Edward J. Sparling, first president of Roosevelt College.
118. The writer was an employee of Mr. Taylor during this period.
119. Wilbert R. Hasbrouck, "Chicago's Auditorium Theater," The Prairie School Review, Vol. 4, No. 3 (Third Quarter, 1967), pp. 7-21.
120. Chicago Daily News, "Panorama", April 14-15, 1973.
121. Chicago Sun Times, December 15, 1974.

## PART II -- ARCHITECTURAL DESCRIPTION OF THE AUDITORIUM BUILDING<sup>1</sup>

### General Arrangement & Exterior Treatment

A number of years ago, a noted Bauhaus veteran suggested that the Auditorium Building was architecturally inferior because its various functions, particularly the theater, were not given distinct external expression.<sup>2</sup> This superficial analysis, made by a man whose European origin had undoubtedly conditioned him to expect to see the stagehouse of a great theater rising above the roof of its auditorium, totally ignores the fact that functional and structural requirements alone determined the Auditorium's final form.

Unlike the architects of many of the mammoth opera houses and theaters of nineteenth and twentieth century Europe, Adler and Sullivan did not have an unlimited site to work with, nor did they have the luxury of planning their building according to some set of abstract aesthetic principles. In order to get the most out of the severely limited site, aesthetic considerations had to play a secondary role. The result is a building whose originally unrelated but interconnected functions: theater, hotel, and office building, fit together like parts of an intricate Chinese puzzle.

The disposition of these functions was determined by real estate market conditions, light and ventilation requirements, and the site itself (HABS drawing 1 of 53). The office building fronted on Wabash Avenue, a commercial street. The hotel fronted on Michigan Avenue and Congress Street, both primarily residential when the building was constructed (HABS photo IL-1007-75). The theater, where natural light and ventilation were not needed, is located at the rear of the property. The tower, which contained the tanks for the hydraulic elevator equipment and therefore could have been located almost anywhere, was placed on the Congress Street side to mark the entrance to the theater and provide a visual separation between the office and hotel portions (HABS photo IL-1007-7).

The building occupies almost the entire south half of the block bounded on the east by Michigan Avenue, on the south by Congress Street, on the west by Wabash Avenue and on the north by Van Buren Street. Above the battered base, it has a frontage of 172'-0" on Michigan Avenue (not including the portion over the alley, which extends the frontage 16'-1 3/4" further to the north); 360'-10" on Congress Street and 161'-0" on Wabash Avenue.

In general the facades are ten stories or 144'-0" high from the original grade line to the top of the coping, except for the tower which has a frontage of 76'-10" on the Congress Street elevation, a depth of 40'-4" and originally rose another seven (now eight) stories above the rest of the building to a height of 240'-2" at the top of the coping. Originally a two story belvedere used by the United States Weather Bureau, framed in steel and cast iron, stood above the roof of the tower (HABS drawing 3 of 7). This was removed in the

1950s because of the serious deterioration of its concrete faced terra cotta walls. A photo of the belvedere, also used as an observatory, was published in Garczynski's Auditorium.<sup>3</sup>

The first two floors of the building's principal facades are constructed of granite for the full depth of the wall. At the tower this granite extends to the third floor. The remainder of these facades and the four sides of the tower are of Indiana limestone with common brick backing. All of the rear walls were originally constructed of either common brick or terra cotta fireproofing over metal framing, except for those enclosing the former banquet hall at the seventh floor above the theater, which were originally covered with corrugated sheet metal siding.

The degree of prominence given to the entrances of the individual sections has often been criticized. The entrance to the theater is formed by three tall, narrow arches. The entrance is dwarfed by the tower that rises above it. The hotel entrance, on the other hand, consists of three wide arches under a massive projecting loggia that together take up roughly 60% of the first two floors of the Michigan Avenue facade. This loggia is echoed for no apparent functional or structural reason by a row of large rectangular windows separated by narrow piers at the center of the second floor of the Wabash Avenue facade. These windows are not related to the office building's relatively insignificant double arched entrance at the north end of the floor below.

The various designs Adler and Sullivan prepared indicate that they appreciated the importance of establishing a proper hierarchy for these entrances. The hierarchy was economic rather than functional. After all, the hotel, not the theater, was expected to make the enterprise a success.

Although every effort was made to use as much of the site as possible, a small court was constructed between the rear of the Michigan Avenue wing of the hotel and the rear of the stage. This court gave access to the hotel service facilities and theater stagehouse and admitted light to the rear of Michigan Avenue wing of the hotel. The location of the court and the adjoining alley, which runs from the center of the block east along the north wall of the building, undoubtedly determined the orientation of the theater and with it the location of the tower. In 1972 and 73 most of the court was filled in to provide additional office space for the building's present owner, Roosevelt University.

#### The Auditorium

The Auditorium was the first permanent large theater of the nineteenth century to depart entirely from the horseshoe plan that had dominated theater design for over two hundred years. Most of the seating, with the exception of the boxes and a small extension of the first rows of the balcony, is set directly

in front of the proscenium. Because of this novel feature, the Auditorium has become the prototype for many of the large theaters constructed since its time.

A modest application of this principle had been adopted as early as 1872 for the design of the famous Festspielhaus at Bayreuth, but nothing in this earlier building could have pointed to the solution Adler developed for the Auditorium. The only prototype he had to rely on was the similar solution he had been forced to develop when remodeling the interior of the Interstate Industrial Exposition Building for the Opera Festival of 1885, out of which the Auditorium project had grown. A view of the interior of this hall was published in the Inland Architect & Builder, March 1885, and later reproduced as Figure 3 in Morrison's Louis Sullivan.

The seating in the Auditorium is arranged according to the prevailing classifications of the day: the main floor, divided into the parquet and dress circle, seating 1,442; two levels of boxes at each side of the main floor totaling forty in all with room for 200 seats; the balcony, seating 1,632; and the lower and upper galleries seating 526 and 437 respectively, for a total capacity of 4,237.<sup>4</sup>

Originally this capacity could be lowered to approximately 2,500 for a small performance by lowering winch operated hinged sections of the ceilings of the galleries that would close them completely off from view and then curtaining off the rear of the balcony (HABS photo IL-1007-91). Uneven settlement has distorted the faces of the galleries so that the hinged ceiling sections are no longer useable. The seating capacity could be increased to approximately 7,000 for conventions by extending the seating of the main floor into the foyer, reseating the boxes, and installing seating on the stage.<sup>5</sup>

The Auditorium's seating arrangement quickly became the standard for theater design, but the features that have made it famous as an acoustical wonder have been little understood and seldom emulated.

Adler knew that if an audience was to hear a performance it must first be able to see the performance. He apparently came to this conclusion in the late 1870s when he was introduced to the "isacoustic curve" principle of the noted engineer John Scott Russell while working out the design for the Central Music Hall, which was completed in 1879. The isacoustic curve establishes the rise of seating in an auditorium so that the entire audience has a clear view of the stage. In the Auditorium, when viewing the house from the stage it becomes obvious that this principle has had an overriding effect on its design (HABS photo IL-1007-93).

In order to avoid too steep a rise in the balconies and galleries when using the "isacoustic curve", it is necessary to start them well back from the stage apron. A theater like the Auditorium is, therefore, deeper than one of comparable capacity where the rise has been determined by the less desirable but more commonly used practice of staggering the seating.

This extra depth would have been disastrous had a traditional domed ceiling been used. Adler knew from long experience the only way he could avoid excessive reverberation was to break up the surfaces of the ceiling in the forward part of the house and keep it as low as possible without obstructing the view of the stage from the upper gallery. To accomplish this, he developed what is beyond a doubt the theater's most striking feature, the four staggered elliptical ceiling vaults which expand outward from the proscenium (HABS photos IL-1007-79 and 89).

In the original design there were to have been five equally deep vaults (HABS drawing 40 of 53), but when the Auditorium Association asked Adler to provide room for a large organ, the only available space for it was at the north side of the proscenium in the area occupied by part of the first two vaults. The first vault, which rested on colonnettes and looked, with its receding arches, vaguely like the entrance to a late Romanesque church, had to be eliminated. The second vault was extended toward the proscenium to fill the void. This modification has adversely effected the acoustics of the hall, causing annoying echoes to occasionally be heard in the front part of the parquet.

Acoustical considerations were not the only factor governing the design of the theater. Although natural light is not generally desirable in a theater, in the 19th century some source of it was usually available for small matinee performances where the expense of turning on the house lights would have been prohibitive. In the Auditorium a huge stained glass skylight spanning the width of the theater between the upper gallery and the last elliptical vault was provided for this purpose (HABS photos IL-1007-91 and 93). A system of winch operated shutters in the attic controlled the light during the day, and in the evening the skylight was artificially lit by electricity. During the restoration of 1932, if not earlier, the stained glass panels that had begun to deteriorate were covered over. During the restoration of 1967 the panels were restored. They are now lit artificially because the skylights in the roof above have been removed.

The theater's depth and the limited site (the theater, excluding the stage, occupies a space 118'-0" wide x 178'-4" deep) precluded constructing the kind of monumental foyers, salons, and staircases usually associated with European opera houses of comparable size and quality. Rather than create one large foyer connected to the theater by corridors, as was common in many of these theaters, Adler butted a number of small foyers directly to the appropriate sections of seating. This saved space and was more convenient for the audience.

With toilet and cloak rooms for the main floor and boxes off the first floor foyer and those for the balcony and galleries in the two lower foyers of the main balcony, the separation of the various classes of the audience (then thought highly desirable) was assured. It was also for this reason that elevators and stairs serving the galleries were located in the office building and were reached through its lobby rather than through the theater lobby.

Although Adler later rejected the idea, at the time he believed that proper acoustics required the free flow of air at the rear of a theater.<sup>6</sup> His arrangement of foyers, the general absence of doors separating them from the theater, the use of open stairwells in the theater itself and the complete absence of a separation between the rear of the main floor and its foyer were all used to accomplish this end.

The relatively low ceilings of the foyers might have made them dull had Adler and Sullivan allowed the structural system to dictate their form as was done in the rest of the building. Instead, in the two lower foyers the numerous columns required to support the balcony and galleries are connected by elliptical arches, echoing the vaulted ceiling of the theater (HABS photos IL-1007-81 and 83). This design creates impressive spaces that one contemporary writer said resembled the crypts of a medieval cathedral.

Special retiring rooms for men and women were originally located off of these two foyers. A ladies' parlor (HABS photo IL-1007-88) occupied the entire second floor of the tower and was connected to the upper main floor foyer by an ornate marble stair. A men's smoking room, which adjoined the ladies' parlor to the east was also elaborate. Both of these rooms have survived but are no longer connected to the theater. The smoking room is now a faculty lounge and the ladies' parlor, after having served for a number of years as the university's cafeteria, has been divided into classrooms. The university's current master plan recommends restoration of these rooms.<sup>7</sup>

The lower balcony foyer, where an even lower ceiling prohibited the use of arches such as those used in the foyers below, is treated in a simpler fashion. The columns of the lower balcony foyer are sheathed in scagliola, a material used throughout the building to imitate marble.

The primary entrance to the theater is at the base of the tower through the marble lined lobby that leads directly into the south end of the lower main floor foyer (HABS photo IL-1007-76). At its east and west ends are the ticket sellers' windows. Before the 1950s destruction of the south half of this foyer to make way for the arcade paralleling Congress Street, the two elevators for the offices in the tower opened into it at the southwest corner.

Before the construction of the arcade, the floor of the lobby sloped down six inches to meet the sidewalk. In spite of the excessive settlement of the tower, this condition had apparently been maintained by lowering the level of the sidewalk and street. The engineers of the city of Chicago who designed the arcade chose to ignore this condition and raised the level of the street approximately a foot. Because of this, it is now necessary to walk down two steps into the lobby.

Originally, the primary means of egress were through the lobby and two other exits, one at each end of the west wall of the lower main floor foyer (HABS drawing 2 of 7). The exit at the north still leads directly into the former office building lobby, while that at the south, which led through a corridor directly out to Wabash Avenue, was removed during construction of the



university's bookstore in the early 1960s. There are numerous emergency exits. Those on the north lead into the alley. One exit on the south side of the first floor, which originally led into the former hotel toward the ladies' entrance off of Congress Street, now serves as an entrance to the offices of the Auditorium Theater Council.

The decorative scheme of the theater is directly related to the yellow light emitted by the carbon filament bulbs which are still its principal source of illumination. These bulbs are set against a background of Sullivan's gold leafed relief ornament, an innovation which Adler and Sullivan first introduced in their McVicker's Theater remodeling of 1885. The flat wall surfaces, many of which retain the elaborate gold stencils designed by Healy and Millet, were originally "stippled" in several shades of ivory. Even now when the walls are all painted in only one shade of this color it beautifully complements the warm glow of the bulbs and their gold backgrounds.

The same general color scheme was used in the lobby, ladies' parlor, and men's smoking room. Because these rooms had windows, a darker shade of ivory tending toward brown was apparently used.

The shade of ivory had an effect upon the selection of marble adjoining it. The marble in the lobby, for example, is brownish, while much of the scagliola and marble on the staircases in the foyers is definitely yellow.

While ivory predominated in the theater, even the seating upholstery is ivory, a significant amount of maroon is used in areas where the lighter color might easily have become dirty. Thus the carpeting in the foyers, corridors, and aisles, the mosaic floor of the lower main floor foyer, the marble mantels in the inglenooks of the upper main floor foyer (HABS photo IL-1007-86), the scagliola columns in the lower balcony foyer and at the staircase in the upper main floor foyer (HABS photo IL-1007-85) are maroon.

The staircases in the main floor foyers are white marble with multicolored mosaic landings. This kind of mosaic was also used in the panels above the seats in the inglenooks.

With the exception of the oak paneling in the men's smoking room, ornamental wood trim in the theater is limited to the ornamental fireplaces in the inglenooks and in the lower balcony foyer.

The most elaborate ornamental treatment was reserved for the proscenium. Adler and Sullivan had to accommodate two different proscenium widths. The larger opening was for choral and orchestral performances and the smaller was for operatic and dramatic presentations. Their solution to the problem of producing a permanent architectural composition regardless of the opening used was the great hydraulically operated reducing curtain that, when in use, reduces the width of the proscenium from 75'-0" to 47'-0". This unique theater design feature has never been duplicated. In earlier designs Sullivan had treated this curtain, which was originally to have been a pair of hinged

doors, as an architectural extension of the details of the larger opening. In the final design continuity was achieved by avoiding an architectural connection between the two. As executed it is one solid mass of gold leafed ornament that defines the opening and intertwines around the names of ten great composers (HABS photo IL-1007-94).

Above the reducing curtain, forming the arch over the full stage opening, is Charles Hollaway's allegorical mural based on Louis Sullivan's poem "Inspiration": "The utterance of life is a song, the symphony of nature" (HABS No. IL-1007-89).<sup>8</sup> The conceit of the architect in inscribing his own poetry upon the walls of such a public institution as the Auditorium probably has no parallel in history. As if one example were not enough, the murals at either side of the house, painted by Albert Fleury, also illustrated selections from the poem.

At either side of the proscenium, forming the bases of Halloway's mural, are ornate gold leafed fan-like screens. The one on the north (HABS photos IL-1007-3 and 90) originally served as the facing for the principal chamber of the organ (another smaller chamber was located above the ceiling with openings in the cove adjoining the skylight).

An electronic organ has been installed in place of the original pipe organ, built by Frank Roosevelt of New York. Loudspeakers are placed behind the screens at either side of the proscenium and behind the cove adjoining the skylight.

The Auditorium Association wanted a large multipurpose theater that could be used throughout the year. The available technology was adequate for ventilating and heating a structure as large as the Auditorium, but no one had succeeded in adequately cooling one during the summer. Traditionally, warm air was introduced under the seats and exhausted through ventilators in the roof. In order to cool the air in the Auditorium, Adler and his consultant E.F. Osborne had to develop a new technology for heating and cooling. Although the original mechanical equipment which powered the system has been replaced, the fact that the general arrangement of the system continues to function as originally designed demonstrates its success. The ventilation system of the theater is shown in detail in HABS drawings 2 and 47 of 53 and in HABS photos IL-1007-12, 13, 14, 55, 56, 57, and 58.<sup>8</sup>

Fresh air is brought into the basement of the theater through a square brick induction shaft that extends above the roof. Originally, salt water brine was sprayed into this shaft from nozzles set in the corners at even increments along its height to filter the air. In summer, twelve to twenty tons of ice were used to chill the brine spray and thus cool the air. In winter, the salt prevented the spray from freezing.<sup>9</sup>

From the base of the shaft the air was forced by a steam powered 10'-0" diameter cylindrical fan with a 4'-6" face (HABS photo IL-1007-12) into a system of corridor plenums in the basement of the theater. By manipulating doors in these corridors fresh air could either be sent directly up the supply

shafts (HABS photo IL-1007-14) at each side of the proscenium or could be directed by a more circuitous route through banks of radiators to be warmed before entering these shafts. Above the ceiling of the theater the supply shafts branch off into individual ducts (HABS photo IL-1007-57) that lead to the hemispherical plaster supply vents in the spandrel arches of the vaults (HABS photo IL-1007-89) and in the ceiling of the upper gallery.

Once inside the theater air is pulled down from the ceiling toward the rear of the house by exhaust fans connected by ductwork to vents in the foyers and in the plenums formed by the substructure of the seating. The bulk of the air is exhausted through vents under the seating at the back of each row of seats. Some of the air is expelled through shafts leading to the roof at the rear of the theater, while the remainder is forced back into the basement plenum to be recirculated. This forced air system is supplemented by a small number of steam radiators in some of the corridors and foyers.

The six boilers that originally supplied steam to the theater and office building were located under the alley and in the basement beneath the dressing rooms at the north side of the stage.<sup>10</sup> These were connected to a cast iron flue in a brick shaft at the northwest corner of the stage house. The heating plant was removed when the Herman Crown Center was constructed and the brick shaft is now used as a pipe chase.

The framing of the floors and levels of seating is supported on cast iron columns to which the principal steel girders are bolted. These girders in turn carry smaller steel purlins which are bolted to the girders through cast iron brackets.

The columns and beams in the theater and throughout most of the building are encased in terra cotta fireproofing.<sup>11</sup> Between the webs of the purlins, which are spaced approximately 6 to 7 feet apart are hollow brick arch terra cotta floor tiles. The outward thrust of the tiles is resisted by tie rods bridging the purlins. This system of floor construction, which remained popular into this century, concealed the supporting purlins and was a relatively easy to install.

The wood flooring used throughout the building generally rests on wood sleepers attached to the flanges of the purlins by metal clips. The space between these sleepers is filled with grout. Where mosaic is used, it is set in grout directly on top of the hollow floor tiles.

The system of fireproofing in the theater is not as extensive as would be expected today. The wood steps supporting the seating rest on unprotected metal frames, and some of the columns carrying parts of the balcony and boxes are also not fireproofed. This lack of fireproofing extends to the roof trusses of the theater. Although the roof deck is terra cotta tile, the supporting trusses are entirely unprotected (HABS photo IL-1007-52) except for the metal lath and plaster ceiling below. Adler used a similar technique to fireproof the Banquet Hall trusses.<sup>12</sup>

These nine steel Pratt trusses with inclined end posts were designated in the original drawings as "A" through "J" moving westward from the proscenium (HABS drawings 38 and 44 of 53).<sup>13</sup> From center to center of their hinged seats that bear on the masonry walls at either side of the theater, they span 120'-0" and are approximately twenty feet deep. The south bolsters were set on rollers to allow for movement.<sup>14</sup> With the exception of truss "J", which is a bit more massive because the front of the upper gallery is suspended by tie rods from it, they are all of rather light construction.

Because of uneven settlement some of these trusses became overstressed. In 1932 major repairs were made to correct these defects, and in the 1960s additional minor repairs were made.

The framing of the proscenium wall, which is entirely encased in masonry, is the most complex and historically significant element of metal framing in the Auditorium Building. Its central element is the truss that carries the wall over the proscenium opening (designated as truss "N" in the original drawings) (HABS drawing 38 of 53).<sup>15</sup> This truss is also a Pratt design with inclined end posts that spans 78'-6". In order to reduce the loading on it, the wall above was constructed as a curtain wall<sup>16</sup> of hollow terra cotta tile carried on a frame of cast iron columns and steel beams.

Even with this effort at load reduction the truss still carries a sizeable load. A 19-1/2" diameter Phoenix column<sup>17</sup> with its bearing plate at the level of the stage floor, twenty feet above the footing, was placed under the bearing seat at each end of the truss. Phoenix columns were used because their round shape would have efficiently resisted the hinged load of the proposed reducing curtain.

The roof of the stage house was originally to have been supported directly on four trusses (designated in the original drawings as "O" through "R" moving eastward from the proscenium) (HABS drawing 44 of 53). These trusses are of the same Pratt design although slightly shorter than those used in the theater. Without the protection of a heavy plaster ceiling below as in the theater, these trusses are completely covered with terra cotta fireproofing (HABS photo IL-1007-47). Months after these trusses were put in place the Auditorium Association decided to add four floors of kitchens and servants quarters above them. Because they are concealed and original drawings of them have not survived, it is difficult to determine if they were capable of carrying the additional load. Reinforcement was added around the fireproofing (HABS photo IL-1007-48), but whether this was done during construction, as seems likely, or later has yet to be determined.

The presence of curtain wall construction in the proscenium wall refutes the commonly held view that all the walls surrounding the theater and stage are of load bearing masonry. Several years later, the same kind of construction was used for the walls surrounding the theater and stage in Adler and Sullivan's Schiller (later Garrick) Theater Building,<sup>18</sup> a building that was otherwise entirely of steel frame construction. This indicates that the use of masonry bearing walls in the Auditorium was primarily a matter of economics. It was

simply the most economical way of supporting the roof and securing a fireproof barrier between the theater, the surrounding hotel and offices, and adjoining buildings.

Above grade, the bearing walls vary in thickness from 3'-3" at the rear wall of the stage to 1'-9" at the west wall of the gallery foyer. They are constructed of common brick resting on rubble basement foundation walls constructed of local Joliet limestone (HABS photo IL-1007-38). The foundation walls in turn rest on footings constructed of varying layers of steel rails encased in concrete set over a wood raft of two layers of 12" x 12" beams (HABS drawing 13 of 53). In some places large neatly cut pieces of Joliet limestone (generally referred to in contemporary sources as "dimension stone") are used in the footings above the steel rails and concrete (HABS photo IL-1007-8). Adler described the foundations in a article in The Inland Architect and News Record of March 1888 featuring construction photographs.<sup>19</sup>

From the original grade line, the footings seem to vary in depth (to the underside of the wood raft) from a minimum of 17'-0" to a maximum of 20'-0" at the stage walls. Before construction began, it was assumed this depth would safely bring the wood rafts below the level of Lake Michigan, then only a few hundred feet away. As construction progressed, the clay on which the footings were to be set was discovered to be impervious to the penetration of lake water at the higher levels. A system of trenches was devised to connect the footings and to allow artificially induced water to reach them. At this time, there seems to be some question as to whether this essential system still functions.

The demands of the Auditorium Association for a mammoth theater, hotel and office building upon such a relatively small site left a space only 62'-0" deep by 97'-0" wide for the stage and only a small space for storage and dressing rooms. The latter originally took up four floors on the north side of the stage and five floors at its south. While this was adequate for traveling companies, resident companies found it cramped. Dressing rooms were added over the alley below the so called "Studebaker Addition" in later years.

As if trying to overcome these shortcomings, midway through construction the Auditorium Association ordered the installation of an elaborate system of hydraulically operated equipment for the stage. The stage equipment is detailed in HABS drawings 2, 13, and 44 of 53 and HABS photos IL-1007-17 to 37, 84, 92, and 95). This equipment, designed by the Asphalia Association of Vienna and constructed by the Crane Elevator Co. of Chicago, made the Auditorium stage the most well equipped in the country.<sup>20</sup> The two most noticeable features of this system were the cyclorama, a huge moving backdrop depicting the sky under all possible weather conditions, and the flexible stage floor operated by an elaborate system of hydraulic rams in the two tiered basement below (HABS photo IL-1007-92).

The cyclorama, although still partially intact, no longer functions. Most of the hydraulic equipment is inoperable because its principal source of power,

the tanks on the fifteenth floor of the tower, were removed in the early 1970s. Without the substantial pressure produced by the weight of the water in the tanks and attached standpipe, the system, which originally operated almost entirely by gravity, has to depend upon a pump and a relatively small sealed tank in the basement. The pump can only power the large ram at the rear of the stage and the Crane elevator machines that lift the fire and reducing curtains (HABS photos IL-1007-36 and 37).

These elevator machines appear to be identical to those formerly used to power the elevators in the office building and tower. Their method of operation is extremely simple. The basic elements of each machine is a large cylinder and piston with sheaves attached at either end. In order to raise one of the curtains, water is admitted to the cylinder, causing the piston to force the sheaves apart. This movement increases the length of cable wound around the sheaves and exerts a force that pulls the curtain to which the cable is attached. To lower the curtain the process is reversed. The water is let out of the cylinder and the weight on the cable forces the sheaves toward each other.

This system was very efficient. After the water left the cylinders it went to a reservoir under the floor of the basement below the southeast corner of the hotel. From there it was pumped up back into the tanks. In its last years, when at least seven elevators and the stage equipment were still operated by this system, only one sixty horsepower pump was needed to drive it.

Opening off the stage basement and occupying the entire area beneath the orchestra pit is a large locker and storage room for the use by the orchestra.

Also off this basement to the south is a round, brick lined well with corbelled top containing the building's original Shone Hydro-Pneumatic Ejectors that, with some recent minor modifications, still remove water and sewage from the basement drains (HABS photo IL-1007-15).<sup>21</sup> The well was probably dug to help drain the excavations made at the beginning of 1889 for the installation of the hydraulic rams.

It seems likely that when the theater was remodeled by architect Benjamin Marshall in 1910, the stage floor was raised and leveled, and the orchestra pit was widened by removing the first two rows of seats. Since the 1967 restoration, a temporary platform has been constructed over part of this expanded pit in order to restore these rows.

### The Hotel

The early history of the Auditorium project indicates that whatever profit the enterprise could produce was expected to come primarily from the hotel. Unfortunately, the unavoidable requirement that it form only a thin shell around the south and east sides of the theater always prevented it from being operated efficiently.

A little over half of the hotel's approximately four hundred guest rooms faced onto the surrounding streets. The others faced either into the rather bleak service court at the rear of the Michigan Avenue wing or onto the equally grim area above the roof of the theater.

Because of its narrow "L" shape (the Michigan Avenue wing is only fifty feet deep and that on Congress street is roughly ten feet shallower), an inordinately complex system of staircases and elevators and excessively long corridors were required to adequately service the guest rooms. In later years the maintenance and staffing of these disproportionately large facilities were cited as being among the most costly expenses in operating the hotel.<sup>22</sup> This situation was particularly acute in the lower floors of the Congress Street wing where the adjoining theater permitted the rooms to be located on only one side of the corridor.

Although none of the original guest rooms exist, plans indicate that they were haphazardly arranged.<sup>23</sup> In general, the few rooms that did have baths were either gathered around four extremely small light courts in the Congress Street wing or around a limited number of isolated plumbing stacks. From floor to floor, arrangement of the rooms could vary considerably. Even in adjoining rooms of the same orientation and size, the plan of each was often considerably different.

Although a few hotel rooms survive in the Michigan Avenue wing, they were extensively remodeled in 1910 under the direction of architect Benjamin Marshall.<sup>24</sup>

Each guest room was heated by a steam radiator, lighted by a conventional electric chandelier and, if it did not have a bath, was equipped with a sink.

Other than the windows there was no system to supply fresh air to the guest rooms. Each room was connected to a draft operated exhaust flue, buried in the masonry walls between the ranks of windows, that led to the top of the roof parapet. The opening into this flue was in most cases an ornamental, false fireplace with elaborate cast iron mantel. Most of these openings have now been walled over.

The presence of these flues may explain why the first design that employed curtain wall construction was abandoned. If iron framing members had been used in the exterior walls there probably would not have been room in the piers for the flues.

Mechanical ventilation was provided for all the private bathrooms and for the numerous large public bath and toilet rooms located in proximity to guest rooms with private facilities. Exhaust air was drawn through round ductwork in the plumbing walls by electric fans in the attic above the tenth floor. The air was then forced out through vents in the roof. Some of this ductwork is still in use, but none of the original fans survive.

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When construction began, the public rooms of the hotel were to be on the first two floors and most of the service facilities, including the kitchens were to be in the basement. By the time the building was half finished, the Auditorium Association decided to include a large dining room on the top floor across the entire length of the Michigan Avenue front,<sup>25</sup> replacing the smaller restaurant originally contemplated for the second floor of the Congress Street wing.<sup>26</sup> To service the new dining room, a four story addition containing storage space, servants quarters, and extensive kitchen facilities was erected over the stage house.<sup>27</sup> Approximately one year later a banquet hall also served by this addition was constructed at the seventh floor level over the theater.

The Auditorium Association soon realized that the hotel's public facilities were far too extensive. To make the matter worse, the facilities had been located in two separate self supporting units at opposite ends of the building. Only a freight elevator connected the two facilities. By the time the building was completed the entire first floor was given over to some of these facilities.

The lobby, which takes up most of the Michigan Avenue wing at this level (HABS drawing 2 of 7), is distinguished on the exterior by the three arches under the loggia at that side of the building. The principal entrance to the lobby was originally through doors in the center arch that led into a small vestibule. This arrangement was replaced by a pair of revolving wood doors.

At the center of the lobby is a row of five yellow scagliola columns, the capitals of which were originally covered with gold leaf (HABS photo IL-1007-96). At the base of the walls is a high wainscot of Mexican onyx capped by an oak cornice. The flat surfaces of the walls above this cornice are painted brown and the ceiling above is cream with a brown stencil over it. The use of gold leaf in this room, as well as in the rest of the hotel, was limited to some cornices and moldings. All the light bulbs were originally mounted in the same way they are in the theater except that their ornamental plaster backgrounds were stippled rather than gold leafed.

At the north end of the lobby are two ornately framed openings (HABS photo IL-1007-98). That on the east originally led into the reading room. This was one of the first major public rooms to be abandoned, having been converted into a store at the turn of the century. This space, which has for years contained a mezzanine, has recently been taken over by the university's undergraduate admissions office. The other opening, which until the partial restoration of the lobby in 1973 contained a double door, originally led into the baggage room, off of which was the auxiliary staircase of the Michigan Avenue wing and a freight elevator. This now serves as a corridor to the elevators that were added when the light court was filled in.

The reception counter and an open area used by a stockbroker originally ran along the north end of the lobby's west wall. The counter is now considerably shorter and is used as an information desk for the university. The remainder of the space has been used for faculty mail boxes since the 1973 restoration.



To the south of the counter is the grand staircase (HABS photo IL-1007-97). Throughout the hotel's history the location of this staircase was regarded as unsatisfactory for one reason or another. Adler thought its location had needlessly complicated the framing in this part of the building.<sup>28</sup> As late as the 1930s preliminary plans were made by Holabird and Root to relocate it.<sup>29</sup> It survived unchanged until the 1960s when its white marble treads and elaborate mosaic landing (HABS photo IL-1007-99) were replaced with white terrazzo.

An onyx wall, appearing as an extension of the wainscoting, originally separated the southernmost bay from the rest of the lobby (HABS photo IL-1007-97). This separation created an open corridor that allowed ladies to enter the building through a separate pair of doors in the arch south of the main entrance and go to the two elevators adjoining the grand staircase without having to walk through the main part of the lobby. Remnants of this means of access may still be seen in the short extension of the wall adjoining the elevators, the break in the pattern for the mosaic floor, and the exterior doors, which though locked for many years, still survive.

Along the south wall of the lobby facing onto this former corridor are two large arched openings, each one framing a pair of doors with side lights. The doors lead into the first floor of the Congress Street wing. This area has been used for offices since the construction of the arcade along Congress Street in the 1950s. Originally, nearly half of its eastern end was taken up by the restaurant, and the remainder was divided into two levels by a mezzanine. The space below this mezzanine originally contained the bar, the barbershop, and another ladies' entrance from Congress Street that led to a corridor behind the bar and barbershop and partially into the restaurant and the theater manager's office. On the mezzanine above the bar was a billiard room. To the west of the billiard room was the upper part of the barber shop. The billiard room lasted for only a few months. The space was eventually taken over for the use of the bar and restaurant.

A small open balcony in the southwest corner of the restaurant connected the mezzanine level with the first landing of the grand staircase. The balcony projected over the extension of the lower level corridor that went into the restaurant.

Except for paneled maple wainscoting, some of which may still be seen, the restaurant was quite similar in color scheme to the adjoining hotel lobby. The other rooms of this wing also appear to have been decorated in the same basic color scheme used in the lobby. Because the light provided by the bulbs in the frieze at the top of the wall was inadequate, a row of four light standards was originally mounted in the floor down the center of the room.

The oak bar with its massive end columns has long been thought of as one of Sullivan's finest creations (HABS photo IL-1007-106). The mezzanine above did not, however, rest on these columns. It was supported by three thin iron columns at the center of the room.

The extent of H.H. Richardson's influence upon Sullivan while he was working out the architectural embellishments of the Auditorium has long been debated, but there can be little doubt that the design of the barber shop owed much to the work of this great master. The spindles of the balustrade of the staircase, its newel posts, and the wood column supporting it, all have their counterparts in Richardson's residential work (HABS photo IL-1007-107).

By 1910 the barber shop had been moved to the east end of the hotel basement. Although it cannot be said with absolute certainty, it seems likely that the kitchen for the bar and restaurant was moved into the space formerly occupied by the barber shop.

The Congress Street ladies' entrance seems to have been nothing more than a large vestibule containing two passenger elevators that served all the floors on the Congress Street wing of the hotel. A small section of ornamental ceiling in the office of the Auditorium Theater Council is all that remains of the ladies' entrance. These elevators, like all the others in the hotel, were manufactured by the Hale Elevator Co. of Chicago. The remnants of their hydraulic engines in the basement indicate they were quite different from the Crane engines in the theater. The cylinders, for example, which are partially encased in later construction, appear to be considerably longer and are mounted vertically, rather than horizontally. To improve circulation, the university's current master plan recommends that new elevators be installed where the old ones were located.<sup>30</sup>

Nothing remains in the basement of the kitchen that originally served the hotel except for the smoke stack. Of the Auditorium's three smoke stacks with cast iron flues, only the smallest one survives. Its construction is identical to those that served the boilers for the theater and office building. Through minor modifications to its base, this stack was converted into an incinerator. Since the kitchens apparently all had gas ranges when the hotel opened,<sup>31</sup> there seems to be some question as to whether this stack ever actually performed the function for which it was intended.

The decision to locate the dining room on the tenth and not the second floor left the reception room and ladies' parlor as the only public spaces at the latter level. The reception room, which now serves as a student lounge, is located immediately above the lobby (HABS photo IL-1007-100). This room is the same length as the lobby, but it is narrower because of the presence of the recessed loggia than runs along the entire length of its east wall (HABS photo IL-1007-101).

A row of columns like those running down the center of the lobby divides the space. This arrangement of columns is repeated on each floor through the ninth. Like the columns in the lobby, those in the reception room were also sheathed in scagliola. They are now painted over.

The principal entrance to the reception room was intended to be by way of the grand staircase from the lobby below. In order to make the effect of this "imperial"<sup>32</sup> staircase as stunning as possible, Sullivan insisted on eliminating all columns that otherwise might have been placed between its upper flights where one enters the reception room. To do this, a massive steel girder, encased in a continuation of the elaborate plaster light frieze of the reception room, had to be constructed to redistribute the load of one of the principal columns above it to the columns at either side. Not only did this complicate the framing, but it also made it necessary to divert part of the hotel's principal stairwell around the grand staircase.<sup>33</sup> The result of all of this, particularly at the diverted part of the stair, which is covered by a magnificent stained glass skylight, is not unlike one of Piranesi's fantasies.

Unfortunately, code restrictions imposed on the university in its early years required the construction of the firewall that separates these staircases from the reception room. The university's current master plan calls for the removal of this wall.<sup>34</sup>

The reception room and accompanying portions of the staircases are painted and stenciled in several shades of green with a relatively small amount of gold used on various cornices and moldings. In 1962 a partial restoration of the reception room was undertaken, but in 1973, as part of the construction of a cashier's office in the former light court, several original stained glass windows at the north end of its west wall were removed. In 1975 further restoration was carried out along the staircases as part of a program to restore all the stained glass along the former court walls of the principal stairwell, including the above mentioned skylight. All of this stained glass is now artificially lit.

As part of the 1962 restoration work the loggia, which was apparently enclosed during the renovation of 1910, was also partially restored. However, because of the need to use this space year-round, it could not be left open. A new, relatively light system of glazing has replaced the earlier massive wood sash.

To the south of the reception room in the southeast corner of the building is the former ladies' parlor. Since its restoration in 1959 this room has been known as the Louis Sullivan Room and is used as a reception room by the university. The walls and ceiling are painted blue with a stenciled frieze at the top of the wall. The small consoles at either end of the beam that bisect the ceiling are the only elements of Sullivan's relief ornament in the room. A single fireplace removed from one of the hotel's original guest rooms has replaced one of the two ornate fireplaces originally in this room. The room is lit by four large brass chandeliers that closely imitate the originals.

The remaining spaces on the second floor were originally occupied by guest rooms. Like all similar areas in the floors above, these have been taken over by various classrooms and offices.

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The superb view of the lake from the windows along the entire east wall of the dining room was probably the deciding factor in determining its location. This room, which is unquestionably the hotel's finest and one of Sullivan's greatest achievements, now serves as the reading room for the Roosevelt University library (HABS drawings 5 and 6 of 7). This great central hall, occupying an area exactly equal in size to the lobby ten floors below, is roofed by a barrel vault that springs from the mosaic floor. The vault is divided into six bays by wide paneled ribs that served as backgrounds for the incandescent bulbs that originally illuminated it. At the center of the ceiling was a row of six square stained glass skylights, one to each bay, that at night could be artificially illuminated (HABS photo IL-1007-103).

At both ends of the central hall and separated from it by mahogany colonnades were smaller dining areas (HABS photo IL-1007-105). In the lunette above each colonnade was a mural by Oliver Lennett Grover (HABS photo IL-1007-104). The murals have been painted over.

The walls of these smaller dining spaces were, with the exception of a small plaster light frieze at the top, entirely paneled in mahogany. Mahogany was also used for the lower wainscot in the central hall. The flat plastered areas in these rooms were painted white and covered almost entirely with gold stenciling, while the plaster ornament was generally stippled a light brown. Gold leafing was restricted to various cornices and moldings.

These great spaces have been damaged during the last three decades. The former dining area at the north end, for example, was almost completely obliterated in connection with the filling in of the light court. The walls and ceilings, including the mahogany paneling and trim, have been painted over and the stained glass in the skylights has been removed and replaced with florescent lights. Restoration work has finally begun, however. In 1980 the former dining area at the south end was almost completely restored. The university's current master plan calls for the complete restoration of the entire dining room.<sup>35</sup>

The dining room was originally connected to the kitchen on the tenth floor of the addition above the stage house by two bridges spanning the light court. The former kitchen and the floor above it now serve as stacks for the library, and the floors below, which originally contained storage space and servants quarters, are used as office space by the university.

The banquet hall, known since its partial restoration in 1957 as the Rudolph Ganz Recital Hall, was a last minute addition demanded by the hotel's lessees (see HABS drawings 48 to 53 of 53 and 1 of 1 and HABS photos IL-1007-4, 5, 6, and 61 to 74).<sup>36</sup> Because of this it had to be placed at the seventh floor level above the roof of the theater, as no other place was left for it. Fortunately, the two elevators leading up from the ladies' entrance off of Congress Street just happened to be in line with the available space. It was, therefore, possible for the patrons of this facility to enter and leave the building without ever having to go through areas properly reserved for the hotel's guests.

The banquet hall was originally approached from these elevators by way of a lobby and separate antechambers for men and women. The original arrangement of the antechambers has been totally obscured by subsequent alterations, including the restoration work of 1957. The present lobby, although still convincingly Sullivanesque with its birch paneling and stained glass skylights, has been shorn of a pair of birch columns that were once the most elegant feature of these rooms.

The hall itself is a large rectangular room with a flat ceiling carried on deep, partially exposed transverse beams. Originally, a pair of massive gold leafed plaster chandeliers hung from each beam (HABS drawing 1 of 1). The lower part of the south, east and west walls are faced with massive birch pilasters with ornately carved capitals (HABS photos IL-1007-4, 5, and 6). From these capitals spring semicircular arches, the lunettes of which are filled with the most elaborately detailed example of stained glass in the building. A high paneled birch wainscot continues around the room between the pilasters. In most cases, the space below the lunettes and above the wainscoting is filled with one of a number of murals painted by Albert Fleury. The ceiling and upper portions of the walls were originally painted in shades of blue and green to which, in most areas, elaborate gold stenciling was applied. The use of gold leaf on cornices and molding seems to have here been a bit more generous than in the other rooms of the hotel. A musicians' gallery with an ornate arcade front was originally suspended from the ceiling at the north end of the room (HABS drawing 1 of 1). This was removed when the hall was taken over by a Masonic lodge in the early years of this century.

Because the banquet hall was three floors below the kitchen, a staircase and dumb waiter had to be constructed at the northeast corner of the hall to service it.

The banquet hall and its attached spaces, unlike the hotel's other public rooms that were heated directly by radiators, were originally heated by a forced air system using fresh and recirculated air similar to that in the theater. This system was located in the space between the hall floor and the roof of the theater below (HABS drawing 53 of 53 and HABS photos IL-1007-65 to 72). It was used until 1979, when a new heating system was installed. Also in this space are the lifts originally used for storing furniture and carpets beneath the floor of the banquet hall when not in use (HABS photos IL-1007-73 and 74).

Because no provision had been made in the trusses over the theater for carrying anything other than its roof and ceiling, the only way the banquet hall could be constructed was to build it as a bridge spanning the full width of the theater, entirely independent of the roof below. Adler and his consultants knew that the walls upon which this bridge would have to rest were already overloaded. In order to reduce the danger of future damage to the rest of the building, it was necessary to make the hall and the structural framing of the bridge as light as possible. To accomplish the former, fireproofing was reduced to a dangerous minimum. None of the supporting members were actually encased in terra cotta and the exterior was clad in

metal siding. To reduce the weight of the structure, the two steel trusses that are its principal supporting members were made as deep as the slope of the theater's roof would allow. Resting on these trusses, which span the full 120'-0" width of the theater, are the lightweight framing members that directly support the floor, walls and roofs of the hall and its attached rooms. (HABS drawings 48 to 52 of 53). An excellent view of the banquet hall framing before it was enclosed was published in Garczynski's Auditorium.<sup>37</sup>

Aside from this elaborate framing, other rather complex structural details and systems were employed in the construction of the hotel. To secure column-free space in the lower floors of the Congress Street wing, it was necessary for all the floors above to rest on two foot deep plate girders spanning an average of thirty seven feet between the exterior wall and the fire wall at the south side of the theater.<sup>38</sup>

The roof above the dining room is apparently supported on five light steel lattice work arches, the details of which have yet to be thoroughly investigated.<sup>39</sup>

Fireproofing in the hotel is generally applied in the same way it is in the theater. In order to provide lateral stability and to prevent the spread of fire, four transverse masonry walls (two on each side of the hotel) joined the facades to the fire wall at the south side of the theater and to the rear wall of the Michigan Avenue wing. The walls on the Congress Street side do not start in the basement as do the others. Each wall on the Congress Street side rests upon a pair of cast iron columns. One pair of columns extends through the first floor and the other extends through the first two floors. As there does not appear to be a reason for their existence in the arrangement of the completed building, it can be assumed they are leftovers from the dining room that was to have been on the second floor.

There is nothing particularly unusual about the foundations of the hotel. The rear and end walls of the Michigan Avenue wing are supported on continuous footings identical to those used under the wall separating the Congress Street wing from the theater, which has already been described. Because most of the first floor of the principal facades is taken up by wide openings, isolated footings, which had been common in Chicago for exterior walls since the 1870's were used under the columns and the piers between them. The interior columns also rest on such footings, the tops of which project above the basement floor.

In the Auditorium hearings of 1925, several engineers testified to the effect that the cast iron plates that rest on these footings were too thin. In support of this assertion, attention was called to the base of a column at the north end of the Michigan Avenue wing that has been modified by the addition of heavy plates bolted to the sides (HABS photo IL-1007-9). No one, however, including several of the engineers employed by the Auditorium Association over the years could tell when or for exactly what reason these apparent repairs had been made.<sup>40</sup>

Because the hotel was operated under a lease by the Auditorium Hotel Company, it originally had its own heating and electrical plants.<sup>41</sup> These were located in the basement of the Michigan Avenue wing. The exact location of the electrical plant is not known, but the boiler room, containing five boilers, was under the light court, adjacent to a smoke stack in the rear wall of this wing. The cast iron flue of this stack, like that of the other, has been removed and its brick shaft now houses ductwork.

The piping for the heating system in the hotel was primitive for a building of its size. Each radiator was connected to a single riser into which the condensate was returned by a separate pipe leading out of the radiator through the floor, and then back into the riser at a point near the ceiling of the floor below. Although some of the original radiators still exist none of them are operable. The entire building is now heated by a modern low pressure steam system.

#### The Office Building and Tower

As mentioned in the description of the exterior of the building at the beginning of this chapter, the tower was intended to act as a visual separation between the hotel and office building. This separation was in reality only symbolic. From the third through the ninth floors, the hotel extended across the full length of the Congress Street elevation. Thus, the two southernmost bays of windows on the Wabash Street side at these levels were for hotel rooms rather than offices.

The theater also protruded into the office building. The stairwell that leads to the galleries from the office building lobby takes up the first six floors of its northernmost bay, and the exit passage from the south end of the lower main floor foyer took up a space that might otherwise have been used for a store. The office building was therefore much smaller than it appears to have been at first glance. In fact it contained only seventy offices in its upper nine floors and six stores on the first floor. The stores each occupied one bay for the full forty foot depth of this part of the building and were, therefore, even by the standards of the day, quite small (HABS drawing 2 of 7).

The offices were arranged in a manner similar to the rooms in the Congress Street wing of the hotel. Those below the seventh floor faced out only onto the street, while those above were smaller and faced onto both the street and the area above the roof of the theater. The offices were all ventilated, heated and generally equipped with the same basic amenities as the hotel rooms. However, the walls facing onto the corridors were filled with borrow lights, as were their entrance doors. Some of the offices even had the same ornamental cast iron mantels found in the hotel rooms.

The finishes in the office building were plainer and more durable than those in the hotel or theater, although the doors, casing, and other trim are generally the same throughout the building. The floors of the corridors and

landings of the staircases were tiled only in this part of the building. Even in the relatively small lobby at the north end of the first floor, the walls and the ceiling were originally of plain white Georgia marble. With the exception of some small pieces of plaster ornament on the ceiling of the ninth floor elevator lobby, which originally served the Chicago Conservatory of Music and Dramatic Art, ornamentation in the few cases where it does appear, such as the newel posts of the staircases in the lobby, is always of cast iron.

Unfortunately, the lobby of the office section was totally gutted in the early 1960s when the stores on the first floor were being removed to provide space for a new university bookstore. All that remains of the lobby are the staircases and a few pieces of marble in the ceiling near the elevators. The only place where the original condition of the office building's interior may be still seen is the fourth floor, where the corridor and one office (room 476) survive intact.

The office building originally had only three elevators, all designed for passenger service. The center one was, however, provided with double doors so as to allow it to serve as a freight elevator when needed. When they were replaced by two automatic elevators in the early 1960s, they were the only hydraulically operated elevators left in the building. The elaborate, formerly glazed, cast iron facing of their shafts at the first landing of the office staircase is the only surviving example of original elevator trim in the building.

The only major public space connected with the office building is the former recital hall at the seventh floor (HABS drawing 44 of 53).<sup>42</sup> The peculiar U-shaped configuration of this hall is entirely due to its location above the galleries of the theater and their foyer. The position of the theater's skylight greatly restricted the depth of the hall. The only way to accommodate its approximately 500 seats was to allow its width to greatly exceed its depth. In order to get around the ceiling of the upper gallery, the slope of the seating had to be rather steep. These factors determined the orientation of the hall, which still remains its primary weakness. Because the corridor that serves the recital hall runs behind the stage, it is difficult for anyone to enter or leave the hall inconspicuously when it is in use. Aside from this defect, the hall seems to have functioned adequately.

Originally, the recital hall was decorated in the same ivory and gold color scheme used in the theater. At the center of the ceiling was a large stained glass skylight that has long since been removed. A photograph of the recital hall was published in Garczynski's Auditorium.<sup>43</sup> In spite of extensive damage by a fire in 1941, the hall remained basically intact until it was remodeled into the present O'Malley Theater in 1973. In the course of this insensitive remodeling practically every vestige of Sullivan's decorative scheme was destroyed.

With the single exception of the principal girders of the office building running parallel to the facade rather than perpendicular, the structure of the hotel and office building is practically the same. The two fire walls, that



in the hotel wing seem only to define the lobby and reception room above, serve the useful function in the office side of separating the hotel rooms at the south and stairwells at the north from the bulk of the offices.

In the basement under the center of the office building between these fire walls may still be seen the quarry tile floor and bases for the machinery of the plant that originally supplied direct current electricity to the office building and theater.<sup>44</sup>

When construction began, that portion of the tower which projects above the main cornice was intended only to house the tanks for the hydraulic equipment and an observation deck above. By the time the building was almost half finished, the Auditorium Association had decided to raise the height of the tower one story and to turn most of the new space into offices.

In plan, however, the tower stories are not much bigger than a large house (HABS drawing 33 of 53). In order to prevent the relatively small offices from being too cramped, Adler and Sullivan reduced the width of corridors and stairs to an absolute minimum, going so far as to use dangerous winders in the stairs. Even the two elevators which connected the tower with the tenth floor of the office building and the theater lobby were the smallest public passenger elevators in the building.

The largest office in the tower was that of Adler and Sullivan which took up the entire sixteenth (now seventeenth) floor and half of the floor above.<sup>45</sup> Plans of the original arrangement of this office can be confusing unless it is understood that the north half of the seventeenth (now eighteenth) floor was made higher than its south half in order to accommodate a mezzanine over the drafting room on the lower floor (HABS drawing 38 of 53). Plans of the Adler and Sullivan offices were published in The Engineering and Building Record.<sup>46</sup>

The office floors of the tower were finished in the same manner as those of the office building. Because the floors in the tower were completed somewhat later, random mosaic, like that used in the dining room of the hotel, was used for flooring instead of tiles. The office floors are now carpeted.

The tower originally contained five tanks. One horizontal steel tank hung from the ceiling of the seventeenth (now eighteenth) floor was used for domestic water, and four wood stave tanks surrounded by protective iron shells that held water for the hydraulic equipment stood on the fifteenth floor.

In 1972 and 73, as part of the university's effort to gain needed office space, the tower, vacant since 1941, was remodeled. A new elevator, beginning on the eighth floor, replaced the originals which had been removed when the arcade was constructed along Congress Street. While adding a new sixteenth floor in the high space reserved for the water tanks at the fifteenth floor, the old tanks that were vital for the operation of the hydraulic equipment were removed.

The tower is framed in exactly the same manner as the office building, but in order to reduce its weight, hollow bricks were used as backing for the limestone facing. The only way the weight of the tower could be properly distributed over the clay beneath it was for it to rest on a single raft-like footing. This footing, described in detail in Adler's illustrated article "Foundations of the Chicago Auditorium," is of basically the same construction as those used elsewhere in the building.<sup>47</sup> But because of the size of the footing, the foundation walls above it had to be constructed of massive stepped pieces of "dimension stone" (HABS drawing 13 of 53 and HABS photo IL-1007-8).

The most interesting structural feature in the walls above the foundation of the tower is the concealed system of steel girders resting on two cast iron columns that distribute the load of the tower's north wall around the doors between the theater lobby and the lower main floor foyer.

During the Auditorium hearings of 1925, the bearing capacity of the base plates under the two tower columns was questioned.<sup>48</sup> In 1932, under the direction of the architectural firm of Holabird and Root, new welded webs were added to these plates and the whole assembly was then covered with concrete.

#### Miscellaneous Systems Used Throughout the Building

The plumbing contract was awarded to Potts & Esch for \$94,000 in August 1888. The specifications for this work by William G. McHarg were published in full several years later and are interesting reading not just for the detailed information on the Auditorium Building but also for the standards and practices of the period.<sup>49</sup>

Originally, cold water for the basement and first two floors was taken directly from the city mains. Cold water for the upper floors of the hotel and office building was pumped into separate pressure tanks in the attic above the tenth floor of each and fed down from there. The same basic system was employed in the tower, using the previously mentioned tank on the seventeenth (now eighteenth) floor.<sup>50</sup> Over the years the system has been modified, but with the exception of the tower, which is force fed by pumps, it still seems to operate in substantially the same fashion. All the water pipes were originally of galvanized iron.

All storm and sanitary sewers above the basement level originally discharged directly into the city sewers. All storm and sanitary sewers in the basement, as well as subsurface ground water, was discharged into these sewers by way of the sewage ejectors under the stage (HABS photo IL-1007-15). All sewer pipes were originally of wrought iron except those under the basement floor which were of cast iron.<sup>51</sup> Modifications have of course been made over the years, but most of these systems date from the building's construction.

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All that remains of the original electrical system, installed by the Chicago Edison Co. from 1888 to 1890 is a sizeable amount of wire and bulb sockets. Some of this wire, which is unshielded and buried directly in the plaster, is still in use throughout the building, while the sockets are only operable in the theater. Over the years, repairs and changes have been repeatedly made throughout the system and it consequently has elements in it that date from almost every period in the building's history. Remains of the electric plant, installed by the Chicago Edison Company, which furnished power to the theater and office building are in the west end of the basement under the Wabash Street sidewalk.<sup>52</sup>

Prepared by Charles E. Gregersen, AIA, 1980.

FOOTNOTES TO PART II

1. Two excellent contemporary accounts of the Auditorium Building were published: Dankmar Adler, "The Chicago Auditorium," Architectural Record, Vol. 1, No. 4 (April-June 1892), pp. 415-434, (copy in Field Records) and Edward R. Garczynski, Auditorium (Chicago: E.S. Hand Exhibit Publishing Company, 1890). The latter has a list of "Individuals, Firms and Corporations Employed in the Construction and Equipment of the Auditorium Building" on p. 15 (copy in Field Records).
2. Ludwig Hilbersheimer, Contemporary Architecture, Its Roots and Trends (Chicago: Paul Theobald & Company, 1964), pp. 97-98.
3. Garczynski, p. 144.
4. Hugh Morrison, Louis Sullivan, Prophet of Modern Architecture (New York: The Museum of Modern Art and W.W. Norton & Company, Inc., 1935), pp. 99-101.
5. Adler, "The Chicago Auditorium," pp. 423-424.
6. Dankmar Adler, "The Paramount Requirements of a Large Opera House," Inland Architect, October 1887, p. 46. This idea was not unique to Adler; it is also proposed in James Ferguson, History of the Modern Styles of Architecture, Third Edition, p. 381.
7. Danforth, Rockwell, Carow, The Auditorium Building, A Master Plan for Roosevelt University (Chicago: Roosevelt University, 1980), p. 52 (hereafter cited as Master Plan) (copy in Field Records).
8. Harry J. Scharres, "Eighty Year Old Theater Reopens," Heating, Piping and Air Conditioning, November 1967, pp. 106-109.
9. Adler, "The Chicago Auditorium," p. 431.
10. Garczynski, p. 30.
11. Garczynski, p. 29. The fireproofing proved effective, as it resisted two early fires with little effect. See Dankmar Adler, "Slow Burning and Fireproof Construction," The Inland Architect and News Record, Vol. XXVI, No. 6 (January 1896), p. 60 and Peter B. Wight, "Some Experiences of Modern Fire-Proofing Material in Actual Tests," The Brickbuilder, Vol. V, No. 12 (December 1896), p. 230.
12. Adler, "The Chicago Auditorium," p. 421.
13. "Building Construction Details No. XXX, The Chicago Auditorium, Part I, General Description and Elliptical Ceiling," The Engineering and Building Record, April 12, 1890, pp. 296-297 (copy in Field Records).

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14. "Building Construction Details No. XXXIV, The Chicago Auditorium, Part II, Main Roof Trusses," The Engineering and Building Record, November 22, 1890, pp. 394-395 (copy in Field Records).
15. "Building Construction Details No. XXXIV," pp. 394-395.
16. "Building Construction Details No. XXX," p. 296.
17. Round columns fabricated by riveting together rolled wrought iron segments. They are named after the Phoenix Iron Company of Phoenixville, Pa., the company which first produced them in 1864.
18. Carl W. Condit, "The Structural System of Adler and Sullivan's Carrick Theater Building," Technology and Culture, Fall 1964, pp. 523-540.
19. Dankmar Adler, "Foundations of the Auditorium Building, Chicago," The Inland Architect and News Record, Vol. 11 (March 1888), pp. 31-32. See also Ralph B. Peck, History of Building Foundations in Chicago, The Engineering Experiment Station Bulletin No. 373 (February 2, 1948), University of Illinois, Urbana, Illinois. Two construction photographs are reproduced from the Inland Architect article as Plates 12 and 13 in Vinci/Kenny Architects, Adler and Sullivan's Auditorium Building. Architectural Guidelines for Its Preservation and Restoration for Roosevelt University (Chicago: Roosevelt University, 1977) (copy in Field Records). Photocopies of several Peck drawings are also in the Field Records; one of them is reproduced on HABS drawing 13 of 53.
20. Garczynski, pp. 133-135.
21. Garczynski, pp. 34-35.
22. Testimony of John Goodridge, State of Illinois vs. Roosevelt College of Chicago, et al., Superior Court of Cook County, Case No. 48S15365, December 17, 1952, p. 38, in Roosevelt University Archives.
23. Plans of the Auditorium Building, Chicago, Adler & Sullivan, architects. From the offices of the Auditorium Building Corporation. In the Art Institute, Chicago, Illinois (hereafter cited as Plans) (reduced photocopies in Field Records).
24. Drawings in Roosevelt University Physical Plant Department.
25. Garczynski, pp. 86-89.
26. Garczynski, pp. 70-72.
27. Garczynski, pp. 92-93.
28. Adler, "The Chicago Auditorium," p. 421.

29. Drawings in Chicago Historical Society.
30. Master Plan, pp. 83-84.
31. Garczynski, pp. 92-93.
32. A staircase which, after reaching an intermediate landing, branches off into two smaller flights running parallel to it at its side. See Nikolaus Pevsner, An Outline of European Architecture, Seventh Edition, p. 281.
33. Adler, "The Chicago Auditorium," p. 421.
34. Master Plan, p. 51.
35. Master Plan, p. 52.
36. Adler, "The Chicago Auditorium," pp. 420-421, and Carczynski, pp. 101-106.
37. Garczynski, p. 27.
38. Adler, "The Chicago Auditorium," p. 420.
39. Garczynski, p. 86.
40. Chicago Auditorium Association vs. Mark Skinner Willing and the Northern Trust Company, as Trustees, etc., et al., United States Circuit Court of Appeals for the Seventh Circuit, October Term, A.D. 1925, No. 3733. Copy in Roosevelt University Archives, Chicago, Illinois (hereafter cited as C.A.A. vs Willing & N.T.C.).
41. Garczynski, pp. 30-31.
42. Garczynski, p. 142.
43. Garczynski, p. 141.
44. Carczynski, p. 31.
45. Garczynski, p. 143.
46. "New Offices of Adler and Sullivan, Architects, Chicago," The Engineering and Building Record, Vol. XXII (June 7, 1890), p. 5 (copy of plans in Field Records).
47. Dankmar Adler, "Foundations of the Auditorium Building, Chicago," pp. 31-32. See also Ralph B. Peck, History of Building Foundations in Chicago.
48. C.A.A. vs. Willing & N.T.C.

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49. Industrial Chicago:--The Building Interests. (Chicago: The Goodspeed Publishing Company, 1891), pp. 73-86 (copy in Field Records).
50. Garczynski, p. 34.
51. Garczynski, pp. 34-35.
52. Garczynski, pp. 31-32.

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PART V - PROJECT INFORMATION

Adler and Sullivan's Auditorium Building has long been recognized as a masterwork of architecture, a towering achievement of aesthetic design. Yet, what is behind the facades and accessible interior spaces rivals the significance of the visible design solution.

The Auditorium Building is a complex and sophisticated structure that, when it was built, was at the cutting edge of architectural technology. The clients' program called for a major theater, hotel, and office building all on a relatively small site at the southern end of Chicago's business district. The rapidly advancing technologies of the late nineteenth century allowed design solutions that would have been impossible just a few years before.

Modern buildings, particularly large commercial buildings, must be evaluated as a whole, including their structural and mechanical systems and aesthetic design. Buildings designed empirically or from pattern books have a certain simplicity in their structural and mechanical systems that allows a straightforward analysis of their significance. Scientifically designed buildings, based on the proven strength and characteristics of materials and mathematical formulas are far more complex, particularly as their size increases. Given the complexity of the program and solution in the Auditorium Building, its significance should be assessed in several major areas.

The businessmen who developed the building wanted a prestigious auditorium that, at the very least, would not lose money. They asked the architects to integrate two income producing functions, a hotel and an office building, into the project in order to offset the expected losses from the theater. Each of the three sections of the building had different needs which posed different problems of design, from the need for firewalls between sections and separate entrances and exits to the widely varying loads bearing on poor subsoil. Structurally the building contains bearing walls, posts and beams, long span trusses, even curtain walls. All of the vertical transportation and stage equipment in the building was powered by a gravity feed water hydraulic system using water tanks in the tower to supply the necessary head. The major elements in the aesthetic design solution for the auditorium itself were dictated by acoustics, sight lines, number of seats, and constraints of the site.

The Auditorium Building is but one example of the multiplicity of areas in which significance can be assessed in large commercial buildings. Just as architectural technology played a larger and larger role in the design and construction of late 19th and 20th century buildings, historians of architecture must now place greater emphasis on technology in assessing buildings from that period.



AUDITORIUM BUILDING (Roosevelt University)  
HABS No. IL-1007 (Page 86)

The research and documentation of the engineering systems of the Auditorium Building were undertaken by the National Architectural and Engineering Record (NAER) in cooperation with Roosevelt University and with financial support from the Graham Foundation of Chicago and the State of Illinois Department of Conservation. NAER's participation was a joint effort of the Historic American Engineering Record (HAER) and the Historic American Buildings Survey (HABS). The records will be filed in the Library of Congress as an addendum to the 1963 HABS records for the building.

The research was completed in the summer of 1979 with HAER architect Donald F. Stevenson, AIA, Project Director; Rita Gorawara (Texas A & M University), Project Supervisor; Tobin Kendrick (Montana State University), Architecture Technician; and HAER Photographer Jet Lowe.

The documentation was completed in the summer of 1980 with HABS architect John A. Burns, AIA, Project Director; Rita Gorawara, AIA (Associate), Project Supervisor; Charles E. Gregersen, AIA, Project Historian; Laura L. Hochuli (University of Wisconsin-Milwaukee), Foreman; and Cathy L. Berlow (University of Florida), J. Michael Palmer (University of Pennsylvania), William Percival (Illinois Institute of Technology), and August Ventura (Cooper Union), Architecture Technicians.

For Roosevelt University, Daniel H. Perlman, former Vice President for Administration and now President of Suffolk University in Boston, initiated the project, obtained financial assistance, and was a constant source of support and encouragement throughout the project. Max Nichols, Director of the Physical Plant Department, Harry Price, and Peter Holt provided much information from their own experience and files. Francis Kozuch, Acting Reference Librarian, and Marcia Dellenbach, Archivist, provided access into the records of Roosevelt University and the Auditorium Association.

At the Art Institute of Chicago, Cecilia Chin, Associate Librarian, and John Zukowsky, Architectural Archivist of the Burnham Library, helped obtain copies of original drawings and historic photographs.

The historical data owes a special thanks to Dr. James A. Scott, who was the first to examine and catalog the records of the Chicago Auditorium Association. His unpublished manuscript on the history of the building from its inception to the construction of the Auditorium Annex was a valuable source. Also, Timothy J. Samuelson, scholar of the works of Adler and Sullivan, made available copies of documents on the history of the building. Finally, Dr. Paul E. Sprague of the University of Wisconsin, Milwaukee, offered valuable suggestions on the preparation of the manuscript.

The title sheet to the drawings, with its aerial axonometric drawing of the Wabash and Congress Street facades, was drawn in the HABS Washington office by Willie Graham and David T. Marsh, Jr., in 1981. The records were edited and prepared for transmittal to the Library of Congress by HABS Architect John A. Burns, AIA in 1984.

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Addendum to:

AUDITORIUM BUILDING  
(Roosevelt University)  
430 South Michigan Avenue  
Chicago  
Cook County  
Illinois

HABS No. IL-1007

**PHOTOGRAPHS**

**WRITTEN HISTORICAL AND DESCRIPTIVE DATA**

Historic American Buildings Survey  
National Park Service  
Department of the Interior  
Washington, DC 20013-7127

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HISTORIC AMERICAN BUILDINGS SURVEY  
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Addendum to:  
AUDITORIUM BUILDING  
(Roosevelt University)  
430 South Michigan Avenue  
Chicago  
Cook County  
Illinois

HABS No. IL-1007

Data pages 1 through 86 were previously transmitted to the Library of Congress. This is data page 87.

INVENTORY OF PHOTOGRAMMETRIC IMAGES

The glass photogrammetric plates listed below are not reproducible except with special permission. However, reference prints and film copy negatives have been made from the plates indicated by an asterisk (\*) and are included in the Library of Congress collection of formal HABS/HAER photographs.

- 8      5" x 7" glass plate negatives (4 stereopairs) produced by  
Perry E. Borchers of the Ohio State University in 1963.

One survey control contact print per plate; survey control  
information for each pair.

LC-HABS-GS05-T-2656-301L \*      EAST FACADE, FRONT ENTRANCE

LC-HABS-GS05-T-2656-301R      EAST FACADE, FRONT ENTRANCE

Left and right overlap: 90%

LC-HABS-GS05-T-2656-302L \*      SE CORNER-INCLINED

LC-HABS-GS05-T-2656-302R      SE CORNER-INCLINED

Left and right overlap: 95%

**AUDITORIUM BUILDING**  
**HABS No. IL-1007**  
**Data (Page 88)**

LC-HABS-GS05-T-2656-303L \* AUDITORIUM INTERIOR, TO SIDE OF STAGE

LC-HABS-GS05-T-2656-303R AUDITORIUM INTERIOR, TO SIDE OF STAGE

Left and right overlap: 85%

LC-HABS-GS05-T-2656-304L \* AUDITORIUM INTERIOR, BALCONY

LC-HABS-GS05-T-2656-304R AUDITORIUM INTERIOR, BALCONY

Left and right overlap: 70%

PROJECT INFORMATION STATEMENT

Photogrammetric images were incorporated into the HABS/HAER collections in the summers of 1985 and 1986. Inventories of the images were compiled and filed as data pages for each structure recorded. Since the glass photogrammetric plates are not reproducible except with special permission, a reference print and film copy negative were made from one plate of each stereopair and from the most informative plates in sequential sets. The reference prints and copy negatives were then incorporated into the formal HABS/HAER photograph collections.

The Photogrammetric Images Project was a cooperative endeavor between the HABS/HAER Division of the National Park Service and the Prints and Photographs Division of the Library of Congress. The reference prints and film copy negatives of the original plates were made by the Library of Congress Photoduplication Service with funds provided by the Library of Congress Flat Film Preservation Fund. Additional reproductions were made by HABS/HAER. The project was supervised by HABS/HAER Architect John A. Burns, AIA, and completed by HABS Historians Jeanne C. Lawrence (University of London) in 1985 and Caroline R. Alderson (Columbia University) in 1986.

Addendum to:  
Auditorium Building  
N.W. corner of Michigan Ave. & Congress St.  
(extending through to Wabash Street)  
Chicago  
Cook County  
Illinois

HABS No. ILL-1007

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REDUCED COPIES OF MEASURED DRAWINGS

Historic American Buildings Survey

ADDENDUM TO:  
AUDITORIUM BUILDING  
(Roosevelt University)  
430 South Michigan Avenue  
Chicago  
Cook County  
Illinois

HABS No. IL-1007

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AUDITORIUM BUILDING  
(Roosevelt University)  
430 South Michigan Avenue  
Chicago  
Cook County  
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PHOTOGRAPHS

HISTORIC AMERICAN BUILDINGS SURVEY  
National Park Service  
U.S. Department of the Interior  
1849 C St. NW  
Washington, DC 20240